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THE WATER-BABIES :

A FAIRY TALE FOR A LAND-BABY.

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CHAPTER III.

TOM was now quite amphibious. You do not know what that means? You had better, then, ask the nearest Government pupil-teacher, who may possibly answer you smartly enough, thus—

“Amphibious. Adjective, derived from two Greek words, *amphi*, a fish, and *bios*, a beast. An animal supposed by our ignorant ancestors to be compounded of a beast and a fish; which therefore, like the hippopotamus, can't live on the land, and dies in the water.”

However that may be, Tom was amphibious; and what is better still, he was clean. For the first time in his life he felt how comfortable it was to have nothing on him but himself. But he only enjoyed it; he did not know it, or think about it; just as you enjoy life and health, and yet never think about being alive and healthy: and may it be long before you have to think about it.

He did not remember having ever been dirty. Indeed, he did not remember any of his old troubles, being tired, or hungry, or beaten, or sent up dark chimnies. Since that sweet sleep, he had forgotten all about his master, and Harthover Place, and the little white girl; and in a word, all that had happened to him when he lived before;

and what was best of all, he had forgotten all the bad words which he had learnt from Grimes, and the rude boys with whom he used to play.

That is not strange: for you know, when you came into this world, and became a land baby, you remembered nothing. So, why should he, when he became a water baby?

Then have you lived before?

My dear child, who can tell? One can only tell that, by remembering something which happened where we lived before; and as we remember nothing, we know nothing about it; and no book, and no man, can ever tell us certainly.

There was a wise man once; a very wise man, and a very good man, who wrote a poem about the feelings which some children have, about having lived before; and this is what he said—

“Our birth is but a sleep and a forgetting;
The soul that rises with us, our life's star,
Hath elsewhere had its setting,
And cometh from afar:
Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory, do we come
From God, who is our home.”

There, you can know no more than that. But if I was you, I would believe that. For then the great fairy Science, who is likely to be queen of all the fairies for many a year to come, can only do you

good, and never do you harm ; and instead of fancying, with some people, that your body makes your soul, as if a steam-engine could make its own coke ; or, with some other people, that your soul has nothing to do with your body, but is only stuck into it like a pin into a pincushion, to fall out with the first shake ;—you will believe the one true

orthodox,
rational,
philosophical,
logical,
irrefragable,
nominalistic,
realistic,
inductive,
deductive,
seductive,
productive,
salutary,
comfortable,

and on-all-accounts-to-be-received

doctrine of this wonderful fairy tale, which is, that your soul makes your body, just as a snail makes his shell. For the rest, it is enough for us to be sure that, whether or not we lived before, we shall live again ; though not, I hope, as poor little heathen Tom did. For he went downward into the water ; but we, I hope, shall go upward, to a very different place.

But Tom was very happy in the water. He had been sadly over-worked in the land world ; and so now, to make up, he had nothing but holidays in the water world for a long, long time to come. He had nothing to do now but enjoy himself, and look at all the pretty things which are to be seen in the cool clear water-world, where the sun is never too hot, and the frost is never too cold.

And what did he live on ? Water-creases, perhaps ; or perhaps water-gruel, and water-milk : too many land-babies do so likewise. But we do not know what one-tenth of the water things eat ; so we are not answerable for the water-babies.

And sometimes he went along the smooth gravel waterways, looking at the

crickets which ran in and out among the stones, as rabbits do on land ; or he climbed over the ledges of rock, and saw the sand-tubes hanging in thousands, with every one of them a pretty little head and legs peeping out ; or he went into a still corner, and watched the caddises eating dead sticks, as greedily as you would eat plum pudding, and building their houses with silk and glue. Very fanciful ladies they were ; none of them would keep to the same materials for a day. One would begin with some pebbles ; and then she would stick on a piece of green weed ; and then she found a shell, and stuck it on too ; and the poor shell was alive, and did not like at all being taken to build houses with : but the caddis did not let him have any voice in the matter ; being rude and selfish, as vain people are apt to be ; and then she stuck on a piece of rotten wood, and then a very smart pink stone, and so on, till she was patched all over like an Irishman's coat. And then she found a long straw, five times as long as herself, and said, "Hurrah ! my sister has a tail, and I'll have one too ;" and she stuck it on her back, and marched about with it quite proud, though it was very inconvenient indeed. And, at that, tails became all the fashion among the caddis-baits in that pool, and they all toddled about with long straws sticking out behind, getting between each other's legs, and tumbling over each other, and looking so ridiculous, that Tom laughed at them till he cried. But they were quite right, you know ; for people must always follow the fashion, even if it be spoon-bonnets.

Then sometimes he came to a deep still reach ; and there he saw the water-forests. They would have looked to you only little weeds ; but Tom, you must remember, was so little, that everything looked a hundred times as big to him as it does to you, just as things do to a minnow, who sees and catches the little water-creatures which you can only see in a microscope.

And in the water-forest he saw the water-monkeys, and water-squirrels (they had all six legs, though ; every

thing almost has six legs in the water, except efts and water-babies); and nimbly enough they ran among the branches. There were water-flowers there, too, in thousands; and Tom tried to pick them: but as soon as he touched them, they drew themselves in, and turned into knots of jelly; and then Tom saw that they were all alive—bells, and stars, and wheels, and flowers, of all beautiful shapes and colours; and all alive and busy, just as Tom was. And now he found that there was a great deal more in the world than he had fancied at first sight.

And there was one wonderful little fellow, who peeped out of the top of a house built of round bricks; and he had two big wheels, and one little one all over teeth, spinning round and round like the wheels in a thrashing-machine; and Tom stood and stared at him, to see what he was going to make with his machinery. And what do you think he was doing? Brick-making. With his two big wheels he swept together all the mud which floated in the water: all that was nice in it he put into his stomach and ate; and all the mud he swept together into the little wheel on his breast, which really was a round hole set with teeth, and there he spun it into a neat, hard, round brick, and then he took it and stuck it on the top of his house-wall, and set to work to make another. Now was not he a clever little fellow?

Tom thought so; but when he wanted to talk to him, the brick-maker was much too busy and proud of his work to take notice of him.

Now you must know that all the things under the water talk: only not such a language as ours; but such as horses, and dogs, and cows, and birds talk to each other; and Tom soon learnt to understand them and talk to them; so that he might have had very pleasant company if he had only been a good boy. But I am sorry to say, he was too like some other little boys, very fond of hunting and tormenting creatures for mere sport. Some people say that boys cannot help it; that it is nature, and only a

proof that we are all originally descended from beasts of prey. But whether it is nature or not, little boys can help it, and must help it. For if they have naughty, low, mischievous tricks in their nature, as monkeys have, that is no reason why they should give way to those tricks like monkeys, who know no better. And therefore they must not torment dumb creatures; for if they do, a certain old lady who is coming, will surely give them exactly what they deserve.

But Tom did not know that; and he pecked and howked the poor water things about sadly, till they were all afraid of him, and got out of his way, and crept into their shells; so he had no one to speak to or play with.

At last one day he found a caddis, and wanted it to peep out of its house: but its house-door was shut. He had never seen a caddis with a house-door before; and what must he do, the meddling little fellow, but pull it open, to see what the poor lady was doing inside? What a shame! How should you like to have any one breaking your bedroom door in, to see how you looked when you were in bed? But Tom broke to pieces the door, which was the prettiest little grating of silk, stuck all over with shining bits of crystal; and when he looked in, the caddis poked out her head, and it had turned into just the shape of a bird's. But when Tom spoke to her she could not answer; for her mouth and face were tight tied up in a new nightcap of neat pink skin. But if she didn't answer, all the other caddises did; for they held up their hands and shrieked, like the cats in *Struwwelpeter*, "Oh, you nasty horrid boy! there you are at it again! And she had just laid herself up for a fortnight's sleep, and then she would have come out with such beautiful wings, and flown about, and laid such lots of eggs, and now you have broken her door, and she can't mend it, because her mouth is tied up for a fortnight, and she will die. Who sent you here to worry us out of our lives?"

So Tom swam away. He was very much ashamed of himself; and felt all

the naughtier; as little boys do when they have done wrong, and won't say so.

Then he came to a pool full of little trout, and began tormenting them, and, trying to catch them; but they slipped through his fingers, and jumped clean out of water in their fright. But as Tom chased them, he came close to a great dark hover under an alder root, and out flounced a huge old brown trout, ten times as big as he was, and ran right against him, and knocked all the breath out of his body; and I don't know which was the more frightened of the two.

Then he went on, sulky and lonely, as he deserved to be; and under a bank he saw a very ugly, dirty creature sitting, about half as big as himself; which had six legs, and a big stomach, and a most ridiculous head, with two great eyes, and a face just like a donkey's.

"Oh," said Tom, "you are an ugly fellow, to be sure!" and he began making faces at him; and put his nose close to him, and halloed at him, like a very rude boy.

When, hey presto! all the thing's donkey-face came off in a moment, and out popped a long arm, with a pair of pincers at the end of it, and caught Tom by the nose. It did not hurt him much; but it held him quite tight.

"Yah, ah! Oh, let me go!" cried Tom.

"Then let me go," said the creature. "I want to be quiet. I want to split."

Tom promised to let him alone, and he left go. "Why do you want to split?" said Tom.

"Because my brothers and sisters have all split, and turned into beautiful creatures with wings; and I want to split too. Don't speak to me. I am sure I shall split. I will split!"

Tom stood still, and watched him. And he swelled himself, and puffed, and stretched himself out stiff, and at last—crack, puff, bang—he opened all down his back, and then up to the top of his head.

And out of his inside came the most slender, elegant, soft creature, as soft and smooth as Tom: but very pale and

weak, like a little child who has been ill a long time in a dark room. And it moved its legs very feebly; and looked about it half ashamed, like a girl when she goes for the first time into a ball-room; and then it began walking slowly up a grass stem to the top of the water.

Tom was so astonished that he never said a word; but he stared with all his eyes. And he went up to the top of the water too, and peeped out to see what would happen.

And as the creature sat in the warm bright sun, a wonderful change came over it. It grew strong and firm; and the most lovely colours began to show on its body; blue and yellow and black; spots and bars and rings; and out of its back rose four great wings of bright brown gauze; and its eyes grew so large that they filled all its head, and shone like ten thousand diamonds.

"Oh, you beautiful creature!" said Tom; and he put out his hand to catch it.

But the thing whirled up into the air, and hung poised on its wings a moment, and then settled down again by Tom quite fearless.

"No!" it said, "you cannot catch me. I am a dragon-fly now, the king of all the flies; and I shall dance in the sunshine, and hawk over the river, and catch gnats, and have a beautiful wife like myself. I know what I shall do. Hurrah!" And he flew away into the air, and began catching gnats.

"Oh! come back, come back," cried Tom, "you beautiful creature. I have no one to play with, and I am so lonely here. If you will but come back I will never try to catch you."

"I don't care whether you do or not," said the dragon-fly; "for you can't. But when I have had my dinner, and looked a little about this pretty place, I will come back; and have a little chat about all I have seen in my travels. Why, what a huge tree this is! and what huge leaves on it!"

It was only a big dock; but you know the dragon-fly had never seen any but little water-trees; starwort,

and milfoil, and water-crowfoot, and such like; so it did look very big to him. Besides, he was very short-sighted, as all dragon-flies are; and never could see a yard before his nose; any more than a great many other folks, who are not half as handsome as he.

The dragon-fly did come back, and chatted away with Tom. He was a little conceited about his fine colours and his large wings; but you know, he had been a poor dirty ugly creature all his life before; so there were great excuses for him. He was very fond of talking about all the wonderful things he saw in the trees and the meadows; and Tom liked to listen to him, for he had forgotten all about them. So in a little while they became great friends.

And I am very glad to say, that Tom learnt such a lesson that day, that he did not torment creatures for a long time after. And then the caddises grew quite tame, and used to tell him strange stories about the way they built their houses, and changed their skins, and turned at last into winged flies; till Tom began to long to change his skin, and have wings like them some day.

And the trout and he made it up (for trout very soon forget, if they have been frightened and hurt). And Tom used to play with them at hare and hounds, and great fun they had; and he used to try to leap out of the water, head over heels, as they did before a shower came on; but somehow he never could manage it. He liked most, though, to see them rising at the flies, as they sailed round and round under the shadow of the great oak, where the beetles fell flop into the water, and the green caterpillars let themselves down from the boughs by silk ropes for no reason at all; and then changed their foolish minds for no reason at all either; and hauled themselves up again into the tree, rolling up the rope in a ball between their paws, which is a very clever rope-dancer's trick; and neither Blondin nor Leotard could do it; but why they should take so much trouble about it no one can tell; for they cannot get their living, as Blondin and Leotard do,

by trying to break their necks on a string.

And very often Tom caught them just as they touched the water; and caught the alder flies, and the caperers, and the cock-tailed duns and spinners, yellow, and brown, and claret, and grey, and gave them to his friends the trout. Perhaps he was not quite kind to the flies; but one must do a good turn to one's friends when one can.

And at last he gave up catching even the flies; for he made acquaintance with one by accident, and found him a very merry little fellow. And this was the way it happened; and it is all quite true.

He was basking at the top of the water one hot day in July, catching duns and feeding the trout, when he saw a new sort, a dark grey little fellow, with a brown head. He was a very little fellow indeed; but he made the most of himself, as people ought to do. He cocked up his head, and he cocked up his wings, and he cocked up his tail, and he cocked up his two whisks at his tail-end, and, in short, he looked the cockiest little man of all little men. And so he proved to be; for instead of getting away, he hopped upon Tom's finger, and sat there as bold as nine tailors; and he cried out in the tiniest, shrillest, squeakiest little voice you ever heard,

"Much obliged to you, indeed; but I don't want it yet."

"Want what?" said Tom, quite taken aback by his impudence.

"Your leg, which you are kind enough to hold out for me to sit on. I must just go and see after my wife for a few minutes. Dear me! what a troublesome business a family is!" (though the idle little rogue did nothing at all, but left his poor wife to lay all the eggs by herself.) "When I come back, I shall be glad of it, if you'll be so good as to keep it sticking out just so;" and off he flew.

Tom thought him a very cool sort of personage; and still more so, when in five minutes he came back, and said—"Ah, you were tired waiting? Well, your other leg will do as well."

And he popped himself down on Tom's knee, and began chatting away in his squeaking voice.

"So you live under the water? It's a dirty low place. I lived there for some time; and was very shabby and dirty. But I didn't choose that that should last. So I turned respectable, and came up to the top, and put on this grey suit. It's a very business-like suit, you think, don't you?"

"Very neat and quiet indeed," said Tom.

"Yes, one must be quiet, and neat, and respectable, and all that sort of thing for a little, when one becomes a family man. But I'm tired of it, that's the truth. I've done quite enough business, I consider, in the last week, to last me my life. So I shall put on a ball-dress, and go out and be a smart man, and see the gay world, and have a dance or two. Why shouldn't one be jolly if one can?"

"And what will become of your wife?"

"Oh! she is a very plain stupid creature, and that's the truth; and thinks about nothing but eggs. If she chooses to come, why she may; and if not, why I go without her;—and here I go."

And, as he spoke, he turned quite pale, and then quite white.

"Why, you're ill!" said Tom. But he did not answer.

"You're dead," said Tom, looking at him as he stood on his knee as white as a ghost.

"No I ain't!" answered a little squeaking voice over his head. "This is me up here, in my ball dress: and that's my skin. Ha, ha! you could not do such a trick as that!"

And no more Tom could, nor Houdin, nor Robin, nor Frikell, nor all the conjurors in the world. For the little rogue had jumped clean out of his own skin, and left it standing on Tom's knee, eyes, wings, legs, tails, exactly as if it had been alive.

"Ha, ha!" he said, and he jerked and skipped up and down, never stopping an instant, just as if he had St. Vitus's dance. "Ain't I a pretty fellow now?"

And so he was; for his body was

white, and his tail orange, and his eyes all the colours of a peacock's tail. And what was the oddest of all, the whiskers at the end of his tail had grown five times as long as they were before.

"Ah!" said he, "now I will see the gay world. My living won't cost me much, for I have no mouth, you see, and no inside; so I can never be hungry, nor have the stomach-ache neither."

No more he had. He had grown as dry and hard and empty as a quill, as such empty shallow-hearted fellows deserve to grow.

But, instead of being ashamed of his emptiness, he was quite proud of it, as a good many fine gentlemen are, and began flirting and flipping up and down, and singing—

"My wife shall dance, and I shall sing,
So merrily pass the day;
For I hold it one of the wisest things,
To drive dull care away."

And he danced up and down for three days and three nights, till he grew so tired, that he tumbled into the water, and floated down. But what became of him Tom never knew, and he himself never minded; for Tom heard him singing to the last, as he floated down—

"To drive dull care away-ay-ay!"

And if he did not care, why nobody else cared either.

And one day Tom had a new adventure. He was sitting on a water-lily leaf, he and his friend the dragon-fly, watching the gnats dance. The dragon-fly had eaten as many as he wanted, and was sitting quite still and sleepy, for it was very hot and bright. The gnats (who did not care the least for their poor brothers' death), danced a foot over his head quite happily, and a large black fly settled within an inch of his nose, and began washing his own face and combing his hair with his paws: but the dragon-fly never stirred, and kept on chatting to Tom about the times when he lived under the water.

Suddenly, Tom heard the strangest noise up the stream; cooing, and grunting, and whining, and squeaking, as if you had put into a bag two stock-doves,

nine mice, three guinea-pigs, and a blind puppy, and left them there to settle themselves and make music.

He looked up the water, and there he saw a sight as strange as the noise ; a great ball rolling over and over down the stream, seeming one moment of soft brown fur, and the next of shining glass : and yet it was not a ball ; for sometimes it broke up and streamed away in pieces, and then it joined again ; and all the while the noise came out of it louder and louder.

Tom asked the dragon-fly what it could be ; but, of course, with his short sight, he could not even see it, though it was not ten yards away. So he took the neatest little header into the water, and started off to see for himself ; and, when he came near, the ball turned out to be four or five beautiful creatures, many times larger than Tom, who were swimming about, and rolling, and diving, and twisting, and wrestling, and cuddling, and kissing, and biting, and scratching, in the most charming fashion that ever was seen. And if you don't believe me, you may go to the Zoological Gardens (for I am afraid that you won't see it nearer, unless, perhaps, you get up at five in the morning, and go down to Cordery's Moor, and watch by the great withy pollard which hangs over the backwater, where the otters breed sometimes), and then say, if otters at play in the water are not the merriest, lithest, gracefulest creatures you ever saw.

But, when the biggest of them saw Tom, she darted out from the rest, and cried in the water-language sharply enough, "Quick, children, here is something to eat, indeed !" and came at poor Tom, showing such a wicked pair of eyes, and such a set of sharp teeth in a grinning mouth, that Tom, who had thought her very handsome, said to himself, Handsome is that handsome does, and slipped in between the water-lily roots as fast as he could, and then turned round and made faces at her.

"Come out," said the wicked old otter, "or it will be worse for you."

But Tom looked at her from between

two thick roots, and shook them with all his might, making horrible faces all the while, just as he used to grin through the railings at the old women, when he lived before. It was not quite well-bred, no doubt ; but you know, Tom had not finished his education yet.

"Come away, children," said the otter in disgust, "it is not worth eating, after all. It is only a nasty eft, which nothing eats, not even those vulgar pike in the pond."

"I am not an eft !" said Tom ; "efts have tails."

"You are an eft," said the otter, very positively ; "I see your two hands quite plain, and I know you have a tail."

"I tell you I have not," said Tom. "Look here !" and he turned his pretty little self quite round ; and, sure enough, he had no more tail than you.

The otter might have got out of it by saying that Tom was a frog : but, like a great many other people, when she had once said a thing, she stood to it, right or wrong ; and so she answered :

"I say you are an eft, and therefore you are, and not fit food for gentlefolk like me and my children. You may stay there till the salmon eat you (she knew the salmon would not, but she wanted to frighten poor Tom). Ha ! ha ! they will eat you, and we will eat them ;" and the otter laughed such a wicked cruel laugh—as you may hear them do sometimes ; and the first time that you hear it you will probably think it is bogies.

"What are salmon ?" asked Tom.

"Fish, you eft, great fish, nice fish to eat. They are the lords of the fish, and we are the lords of the salmon ;" and she laughed again. "We hunt them up and down the pools, and drive them up into a corner, the silly things ; they are so proud, and bully the little trout, and the minnows, till they see us coming, and then they are so meek all at once ; and we catch them, but we disdain to eat them all ; we just bite out the back of their heads and suck their sweet brains. Oh, so good !" — (and she licked her wicked lips) — "and then throw them away, and go and catch another. They

are coming soon, children, coming soon, I can smell the rain coming up off the sea, and then hurrah for a fresh, and salmon, and plenty of eating all day long."

And the otter grew so proud that she turned head over heels twice, and then stood upright half out of the water, grinning like a Cheshire cat.

"And where do they come from?" asked Tom, who kept himself very close, for he was considerably frightened.

"Out of the sea, eft, the great wide sea, where they might stay and be safe if they liked. But out of the sea the silly things come, into the great river down below, and we come up to watch for them; and when they go down again we go down and follow them. And there we fish for the bass and the pollock, and have jolly days along the shore, and toss and roll in the breakers, and sleep snug in the warm dry crags. Ah, that is a merry life too, children, if it were not for those horrid men."

"What are men?" asked Tom; but somehow he seemed to know before he asked.

"Two-legged things, eft: and, now I come to look at you, they are actually something like you, if you had not a tail" (she was determined that Tom should have a tail), "only a great deal bigger, worse luck for us; and they catch the fish with hooks and lines, which get into our feet sometimes, and set pots along the rocks to catch lobsters. They speared my poor dear husband as he went out to find something for me to eat. I was laid up among the crags then, and we were very low in the world, for the sea was so rough no fish would come in shore. But they speared him, poor fellow, and I saw them carrying him away upon a pole. Ah, he lost his life for your sakes, my children, poor dear obedient creature that he was."

And the otter grew so sentimental (for otters can be very sentimental when they choose, like a good many people who are both cruel and greedy, and no good to any body at all) that she sailed solemnly away down the burn, and Tom saw her no more for that time. But Tom could not help thinking of what the otter had

said about the great river and the broad sea. And, as he thought, he longed to go and see them. He could not tell why; but the more he thought, the more he grew discontented with the narrow little stream in which he lived, and all his companions there; and wanted to get out into the wide, wide world, and enjoy all the wonderful sights of which he was sure it was full.

And once he set off to go down the stream. But the stream was very low; and when he came to the shallows he could not keep under water, for there was no water left to keep under. So the sun burnt his back and made him sick; and he went back again and lay quiet in the pool for a whole week more.

And then, on the evening of a very hot day, he saw a sight.

He had been very stupid all day, and so had the trout; for they would not move an inch to take a fly, though there were thousands on the water, but lay dozing at the bottom under the shade of the stones; and Tom lay dozing too, and was glad to cuddle their smooth, cool sides, for the water was quite warm and unpleasant.

But toward evening it grew suddenly dark, and Tom looked up and saw a blanket of black clouds lying right across the valley above his head, resting on the crags right and left. He felt not quite frightened, but very still; for everything was still. There was not a whisper of wind, nor a chirp of a bird to be heard; and next a few great drops of rain fell plop into the water, and one hit Tom on the nose and made him pop his head down quickly enough.

And then the thunder roared, and the lightning flashed, and leapt across Vendale and back again, from cloud to cloud, and cliff to cliff, till the very rocks in the stream seemed to shake; and Tom looked up at it through the water, and thought it the finest thing he ever saw in his life.

But out of the water he dared not put his head; for the rain came down by bucketsful, and the hail hammered like shot on the stream, and churned it

into foam; and soon the stream rose, and rushed down, higher and higher, and fouler and fouler, full of beetles, and sticks, and straws, and worms, and addle-eggs, and wood-lice, and leeches, and odds and ends, and omnium-gatherums, and this, that, and the other, enough to fill nine museums.

Tom could hardly stand against the stream, and hid behind a rock. But the trout did not; for out they rushed from among the stones, and began gobbling the beetles and leeches in the most greedy and quarrelsome way, and swimming about with great worms hanging out of their mouths, tugging and kicking to get them away from each other.

And now, by the flashes of the lightning, Tom saw a new sight—all the bottom of the stream alive with great eels, turning and twisting along, all down stream and away. They had been hiding for weeks past in the cracks of the rocks, and in burrows in the mud; and Tom had hardly ever seen them, except now and then at night: but now they were all out, and went hurrying past him so fiercely and wildly that he was quite frightened. And as they hurried past he could hear them say to each other, "We must run, we must run. What a jolly thunderstorm! Down to the sea, down to the sea!"

And then the otter came by, with all her brood, twining and sweeping along as fast as the eels themselves; and she spied Tom as she came by, and said:—

"Now is your time, eft, if you want to see the world. Come along, children, never mind those nasty eels: we shall breakfast on salmon to-morrow. Down to the sea, down to the sea!"

"Down to the sea!" said Tom; "everything is going to the sea, and I will go too. Good-bye, trout." But the trout were so busy gobbling worms that they never turned to answer him; so that Tom was spared the pain of bidding them farewell.

And now, down the rushing stream, guided by the bright flashes of the storm; past tall birch-fringed rocks, which shone out one moment as clear

as day, and the next were dark as night; past dark hovers under swirling banks, from which great trout rushed out on Tom, thinking him to be good to eat, and turned back sulkily, for nothing dare eat water-babies; on through narrow strids and roaring cataracts, where Tom was deafened and blinded for a moment by the rushing water; along deep reaches, where the white water-lilies tossed and flapped beneath the wind and hail; past sleeping villages; under dark bridge-arches, and away and away to the sea. And Tom could not stop, and did not care to stop; he would see the great world below, and the salmon, and the breakers, and the wide, wide sea.

And when the daylight came, Tom found himself out in the salmon river.

And what sort of a river was it? Was it like an Irish stream, winding through the brown bogs, where the wild ducks squatter up from among the white water-lilies, and the curlews flit to and fro, crying "Tullie-wheep, mind your sheep;" and Dennis tells you strange stories of the Peishtamore, the great boggy-snake which lies in the black peat pools, among the old pine stems, and puts his head out at night to snap at the cattle as they come down to drink?—But you must not believe all that Dennis tells you, mind; for if you ask him,

"Is there a salmon here, do you think, Dennis?"

"Is it salmon, thin, your honour manes? Salmon? Cartloads it is of thim, thin, an' ridgments, shouldthering ache other out of water, av' ye'd but the luck to see thim."

Then you fish the pool all over, and never get a rise.

"But there can't be a salmon here, Dennis! and, if you'll but think, if one had come up last tide, he'd be gone to the higher pools by now."

"Shure thin, and your honour's the thrue fisherman, and understands it all like a book. Why, ye spake as if ye'd known the wather a thousand years! As I said, how could there be a fish here at all at all, just now?"

"But you said just now they were shouldering each other out of water?"

And then Dennis will look up at you with his handsome, sly, soft, sleepy, good-natured, untrustable, Irish grey eye, and answer with the prettiest smile:

"Shure, and didn't I think your honour would like a pleasant answer?"

So you must not trust Dennis, because he is in the habit of giving pleasant answers: but, instead of being angry with him, you must remember that he is a poor Paddy, and knows no better, and burst out laughing; and then he will burst out laughing too, and slave for you, and trot about after you, and show you good sport if he can—for he is an affectionate fellow, and as fond of sport as you are—and if he can't, tell you fibs instead, a hundred an hour; and wonder all the while why poor ould Ireland does not prosper like England and Scotland, and some other places, where folk have taken up a ridiculous fancy that honesty is the best policy.

Or was it like a Welsh salmon river, which is remarkable chiefly for containing no salmon, as they have been all poached out by the enlightened peasantry, to prevent the Cythrawl Sassenach (which means you, my little dear, your kith and kin, and signifies much the same as the Chinese Fan Quei) from coming bothering into Wales, with good tackle, and ready money, and civilization, and common honesty, and other like things of which the Cymry stand in no need whatsoever?

Or was it such a salmon stream as I trust you will see among the Hampshire water-meadows before your hairs are grey, under the wise new fishing laws?—When Winchester apprentices shall covenant, as they did three hundred years ago, not to be made to eat salmon more than three days a week; and fresh-run fish shall be as plentiful under Salisbury spire as they are in Holly-hole at Christchurch; in the good time coming, when folks shall see that, of all Heaven's gifts of food, the one to be protected most carefully is that worthy gentleman salmon, who is generous enough to go down to the sea weighing five ounces, and to come back next

year weighing five pounds, without having cost the soil or the state one farthing?

Or was it like a Scotch stream, such as Arthur Clough drew in his "Bothie":—

"Where over a ledge of granite
Into a granite basin the amber torrent descended. . . .
Beautiful there for the colour derived from
green rocks under;
Beautiful most of all, where beads of foam
uprising
Mingle their clouds of white with the delicate
hue of the stillness. . . .
Cliff over cliff for its sides, with rowan and
pendant birch boughs." . . .

Ah, my little man, when you are a big man, and fish such a stream as that, you will hardly care, I think, whether she be roaring down in full spate, like coffee covered with scald cream, while the fish are swirling at your fly as an oar-blade swirls in a boat-race, or flashing up the cataract like silver arrows, out of the fiercest of the foam; or whether the fall be dwindled to a single thread, and the shingle below as white and dusty as a turnpike road, while the salmon huddle together in one dark cloud in the clear amber pool, sleeping away their time till the rain creeps back again off the sea. You will not care much, if you have eyes and brains; for you will lay down your rod contentedly, and drink in at your eyes the beauty of that glorious place; and listen to the water-ouzel piping on the stones, and watch the yellow roes come down to drink, and look up at you with their great soft trustful eyes, as much as to say, "You could not have the heart to shoot at us?" And then, if you have sense, you will turn and talk to the great giant of a gilly who lies basking on the stone beside you. He will tell you no fibs, my little man; for he is a Scotchman, and fears God, and not the priest; and, as you talk with him, you will be surprised more and more at his knowledge, his sense, his humour, his courtesy; and you will find out—unless you have found it out before—that a man may learn from his Bible to be a more thorough gentleman than if he had been brought up in all the drawing-rooms in London.

No. It was none of these, the salmon

stream at Harthover. It was such a stream as you see in dear old Bewick; Bewick, who was born and bred upon them. A full hundred yards broad, sliding on from broad pool to broad shallow, and broad shallow to broad pool, over great fields of shingle, under oak and ash coverts, past low cliffs of sandstone, past green meadows, and fair parks, and a great house of grey stone, and brown moors above, and here and there against the sky the smoking chimney of a colliery. You must look at Bewick to see just what it was like, for he has drawn it a hundred times, with the care and the love of a true north countryman; and, even if you do not care about the salmon river, you ought, like all good boys, to know your Bewick.

At least, so old Sir John used to say, and very sensibly he put it too, as he was wont to do—

"If they want to describe a finished young gentleman in France, I hear, they say of him, 'Il sait son Rabelais.' But if I want to describe one in England, I say, 'He knows his Bewick.' And I think that is the higher compliment."

But Tom thought nothing about what the river was like. All his fancy was, to get down to the wide, wide sea.

And after a while he came to a place where the river spread out into broad, still, shallow reaches, so wide that little Tom, as he put his head out of the water, could hardly see across.

And there he stopped. He got a little frightened. "This must be the sea," he thought. "What a wide place it is. If I go on into it I shall surely lose my way, or some strange thing will bite me. I will stop here and look out for the otter, or the eels, or some one to tell me where I shall go."

So he went back a little way, and crept into a crack of the rock, just where the river opened out into the wide shallows, and watched for some one to tell him his way; but the otter and the eels were gone on miles and miles down stream.

There he waited, and slept too, for he was quite tired with his night's journey;

and, when he woke, the stream was clearing to a beautiful amber hue, though it was still very high. And after a while he saw a sight which made him jump up; and he knew in a moment it was one of the things which he had come to look for.

Such a fish! ten times as big as the biggest trout, and a hundred times as big as Tom, sculling up the stream past him, as easily as Tom had sculled down.

Such a fish! shining silver from head to tail, and here and there a crimson dot; with a grand hooked nose, and grand curling lip, and a grand bright eye, looking round him as proudly as a king, and surveying the water right and left as if it all belonged to him. Surely he must be the salmon, the king of all the fish.

Tom was so frightened that he longed to creep into a hole, but he need not have been; for salmon are all true gentlemen, and, like true gentlemen, they look noble and proud enough, and yet, like true gentlemen, they never harm or quarrel with any one, but go about their own business, and leave rude fellows to themselves.

The salmon looked him full in the face, and then went on without minding him, with a swish or two of his tail which made the stream boil again. And in a few minutes came another, and then four or five, and so on; and all passed Tom, rushing and plunging up the cataract, with strong strokes of their silver tails, now and then leaping clean out of water, and up over a rock, shining gloriously for a moment in the bright sun; while Tom was so delighted that he could have watched them all day long.

And at last one came up bigger than all the rest; but he came slowly, and stopped, and looked back, and seemed very anxious and busy. And Tom saw that he was helping another salmon, an especially handsome one, who had not a single spot upon it, but was clothed in pure silver from nose to tail.

"My dear," said the great fish to his companion, "you really look dreadfully tired, and you must not over-exert your-

self at first. Do rest yourself behind this rock;" and he shoved her gently with his nose, to the rock where Tom sat.

You must know that this was the salmon's wife. For salmon, like other true gentlemen, always choose their lady, and love her, and are true to her, and take care of her, and work for her, and fight for her, as every true gentleman ought; and are not like vulgar chub and roach and pike, who have no high feelings, and take no care of their wives.

Then he saw Tom, and looked at him very fiercely one moment, as if he was going to bite him.

"What do you want here?" he said, very fiercely.

"Oh, don't hurt me!" cried Tom. "I only want to look at you; you are so handsome."

"Ah?" said the salmon, very stately but very civilly. "I really beg your pardon; I see what you are, my little dear. I have met one or two creatures like you before, and found them very agreeable and well-behaved. Indeed, one of them showed me a great kindness lately, which I hope to be able to repay. I hope we shall not be in your way here. As soon as this lady is rested, we shall proceed on our journey."

What a well-bred old salmon he was!

"So you have seen things like me before?" asked Tom.

"Several times, my dear. Indeed, it was only last night that one at the river's mouth came and warned me and my wife of some new stake-nets which had got into the stream, I cannot tell how, since last winter, and showed us the way round them, in the most charmingly obliging way."

"So there are babies in the sea?" cried Tom, and clapped his little hands. "Then I shall have some one to play with there? How delightful!"

"Were there no babies up this stream?" asked the lady salmon.

"No; and I grew so lonely. I had nothing to play with but caddises and dragon-flies and trout."

"Ugh!" cried the lady, "what low company!"

"My dear, if he has been in low company, he has certainly not learnt their low manners," said the salmon.

"No, indeed, poor little dear; but how sad for him to live among such people as caddises, who have actually six legs, the nasty things; and dragon-flies, too! why they are not even good to eat; for I tried them once, and they are all hard and empty; and, as for trout, every one knows what they are." Whereon she curled up her lip, and looked dreadfully scornful, while her husband curled up his too, till he looked as proud as Alcibiades.

"Why do you dislike the trout so?" asked Tom.

"My dear, we do not even mention them, if we can help it; for I am sorry to say they are relations of ours who do us no credit. A great many years ago they were just like us: but they were so lazy, and cowardly, and greedy, that instead of going down to the sea every year, to see the world and grow strong and fat, they chose to stay and poke about in the little streams, and eat worms and grubs, and they are very properly punished for it; for they have grown ugly and brown, and spotted, and small; and are actually so degraded in their tastes, that they will eat our children."

"And then they pretend to scrape acquaintance with us again," said the lady. "Why, I have actually known one of them propose to a lady salmon, the little impudent little creature."

"I should hope," said the gentleman, "that there are very few ladies of our race who would degrade themselves by listening to such a creature for an instant. If I saw such a thing happen, I should consider it my duty to put them both to death upon the spot." So the old salmon said, like an old blue-blooded hidalgo of Spain; and what is more, he would have done it too. For you must know, no enemies are so bitter against each other as those who are of the same race; and a salmon looks on a trout, as a Yankee looks on a nigger, as something just too much like himself to be tolerated.

To be continued.

COTTON-WEAVING AND LANCASHIRE LOOMS.

THE expression of surprise and look of bewildered amazement with which the Japanese ambassadors contemplated the mechanical wonders in the Western Annexe of the International Exhibition, are not greater than would be manifested by a Lancashire Rip Van Winkle, who, after a sleep of six decades, should arise in this year of grace, 1862, and take a peep at the machinery by which his grandchildren now turn out in a day the cloth that would have cost him the labour of a month. And we know not what Semiramis, the Queen of Assyria, would say (if it be true what Pliny tells us, that she was the inventress of weaving), could she collate and compare, along with a Lancashire operative of the present day, the loom with which he weaves with the rude contrivance by which her subjects were enabled to manufacture cloth two thousand years before the Christian era. This reference to an Assyrian queen, whose history belongs to the era of fable, is sufficient to show the antiquity, although not to fix the date, of the invention of weaving. And the frequent references to the subject in the Bible, and the frequency with which the swiftness of the weaver's shuttle is made to point a moral on the shortness and uncertainty of human life, prove how familiar the Jews were, and probably, also, the nations by which they were surrounded in the time of the patriarchs and prophets, with the process of weaving. We know not, and can hardly conjecture, by what combination of mechanical expedients the people of those times wove their "purple and fine linen," and their silk; but, as they do not appear to have woven cotton, and cotton-weaving is the subject we have at present in hand, we withdraw from the inquiry as foreign to our purpose; and, by thus making a virtue of necessity, we avoid an investigation which seems incapable of being

further pursued with any hopes of success.

Turn we, however, to India, "the birth-place of the cotton manufacture," and there we shall find that cotton-weaving has undoubted claims to a great antiquity—the manufacture of cotton being known and practised in India quite as early as the manufacture of linen in Egypt. We know from Herodotus, who wrote 445 years B.C., that cotton garments were the clothing regularly worn by the Indians, for he says:—"They possess a kind of plant, which produces wool, of a finer and better quality than that of sheep; of this the Indians make their clothes." But for how many centuries prior to this time the Indians manufactured cotton, history or tradition saith not. There is evidence, however, that at that period the cultivation and manufacture of cotton were confined to India; and not till four or five hundred years later are any traces to be found of cotton manufactures in other countries. At the Christian era the growth and manufacture of cotton had spread to Persia and Egypt, and thence the use of cottons and muslins spread gradually into Arabia and neighbouring countries. But India maintained the pre-eminence to which her priority in the cultivation of the plant, and her dexterity and skill in the manufacture of the wool, gave her something like a title; and not till a period within living memory did she yield the palm to Lancashire. The looms of India were wont to supply the markets of the world; and, what may seem to modern notions like "sending coals to Newcastle," the importation into this country of calicoes from Calcutta—where, however, they were first manufactured, and whence the name is derived—was, up to a comparatively recent period, a most important item in the trade between England and her Eastern dependency. Towards

the close of the seventeenth century, the value of the muslins and calicoes which England annually received from India was about 160,000*l*. During the eighteenth century, the importation of Indian piece goods into this country, despite legislative enactments intended to foster the home manufacture of cotton fabrics by prohibiting the wearing of Indian muslins and calicoes, rose to the annual value of 1,250,000*l*. ; and the acme of this increasing trade was reached in 1806, when our importations from India of such goods as are now the staple of the industry of Lancashire amounted to 2,000,000*l*. From this date there is a decline, great and rapid, till England becomes an exporter of what she had previously imported so largely, and is able, not only to furnish cotton goods of every variety and quality for the supply of all her own wants, but also to carry the produce of her looms ten thousand miles across the seas, and, "placing them at the doors of the Indian consumer, undersell the goods made by his own hands from cotton grown in his own garden." And now India figures in our trade returns as the most considerable of our customers for the produce of our looms and spindles, taking from us annually to the value of about 12,000,000*l*., or nearly one-fourth of our total exports of cotton products.

This striking and rapid change in the relative position of the two countries, as respects the cotton manufacture, is the result of those improvements in machinery which are the special glory of Lancashire. The muslins of India, poetically spoken of by the ancients as "woven webs of air," maintained their superiority till long after English ingenuity had applied the power of steam to the spinning and weaving of cotton. Even with the aid of machinery, the weavers of Lancashire failed, for a time, to rival what the "unlettered Hindoo" had manipulated in his little mud hut "on the remote banks of the Ganges," with the aid of only such a loom as his ancestors had used with like success probably thirty centuries before. Looking at the Hindoo weaver, as represented

in the engraving usually employed to illustrate the process of weaving in India, sitting at what is called the Indian loom, with his feet and legs in a pit dug in the ground, and throwing the shuttle by hand across a web rudely stretched on a bamboo frame, one is constrained to confess with Mr. Baines, the historian of the cotton manufacture, that no people possessing a physical organization less exquisitely adapted to give manual dexterity than that of the Oriental, could possibly produce cloth so fine by appliances so rude. But we must now turn to England, which has been described as "the second birth-place of the art," and glance at the steps by which she has attained the undisputed pre-eminence she now enjoys as the seat and centre of the cotton manufacture.

Weaving is defined as "the interlacing together of two lines of threads "at right angles to each other;" and the threads running from end to end of the piece are called the "warp," and those which cross from selva to selva—that is, from side to side of the fabric—the "weft." This is the definition of "plain weaving," and it is sufficient for our purpose. The process by which this interlacing is effected consists of three motions, which must be performed in succession. There is, first, the shedding of the web for the introduction of the shuttle with the weft shot; second, the throwing of the shuttle through the shed; and third, the striking home of the shot. Now, all the improvements which mechanical skill has effected on the first rude contrivance by which these three motions were effected—by the "rude Indian" for centuries, and by the English hand-loom weaver up to 1738—are but expedients for facilitating these motions.

When John Kay, of Bury, in 1738, substituted the fly-shuttle for the hand-shuttle, by which the production of the hand-loom was trebled, his improvement was simply a facilitating of the second of the three essential motions in the process of weaving, "the throwing of the shuttle through the shed;" and the

various "picking" motions applied to the power-loom, with the improvements which have been successively made in them, are but further expedients for performing with greater speed and facility the same primitive and fundamental motion. With the hand-loom, as improved by the application of the "flying shuttle," the weaver could throw a hundred shots per minute, on a web a yard wide, while on broader work the number would be reduced to about eighty; and this rate of shuttling was about three times greater than what had been previously practicable with the hand-shuttle.

The next great improvement effected in the hand-loom was the substitution of what is called the "friction pace" for the bore-staff previously used in tightening the web. It will be readily understood by those most ignorant of the art of weaving, that the cloth as woven is rolled on to a beam or roller in front of the loom, while the yarn which forms the warp is unrolled from a beam at the back of the loom. In the old hand-loom the weaver had to stop shuttling after every two inches of cloth he wove and "draw the bore," and then he had to adjust the warp to the proper degree of tension by means of a ratchet and click. This interfered very much with his progress in weaving, and he was not always able so to adjust the ratchet and click as to secure a uniform tension of the warp. The "friction pace" remedied all this. This was an arrangement by which a weight, suspended to a rope passed two or three times round the end of the yarn-beam, converted the yarn-beam into a friction roller. The amount of friction determined the degree of tension in the warp, and by changing the weight this could be either lessened or increased; but, when it was once adjusted to the fabric to be woven, uniformity was secured, and the weaver could draw the "bore" without disturbing the tension of his warp. Under this improved arrangement the weaver was exposed to less interruption in his shuttling, and he secured the advantage,

so essential to the making of good cloth, of having his web kept at a uniform degree of tension. By a subsequent invention, applied to what was called the "Dandy loom," and which forms the principal peculiarity of that kind of loom, the weaver was saved the necessity of stopping to "draw the bore." A simple motion, connecting the lathe or slay with a ratchet fixed on the end of the cloth beam, caused the beam to take up the cloth as it was woven. A similar motion is a feature in all power-looms; but, as applied to the hand-loom, although it was adopted as an improvement of considerable importance in the weaving of the coarser fabrics, it found little favour with the weavers of muslins and the finer kinds of cloth.

The invention of the power-loom is due to a doctor of divinity in England and a doctor of medicine in Scotland, both of whom seem to have conceived the idea about the same time, and to have worked on unknown to each other in developing their respective projects. The English inventor was Dr. Edmund Cartwright, a Church of England clergyman, who was incited to the rumination of a subject so foreign to the studies connected with his sacred calling by a tea-table conversation, while on a visit to a friend at Matlock, Derbyshire. Richard Arkwright, who had left Lancashire to avoid the fate of Hargreaves, had recently erected in the vicinity of the reverend doctor's temporary sojourn, one of his large spinning factories; and the conversation turned on the great success which had been achieved in the application of machinery to spinning. Already the genius of Arkwright, Hargreaves, and Crompton had increased the production of yarn three hundred fold, and the question was asked: Could not machinery be as successfully applied to weaving as to spinning? This turned the genius of the doctor in the direction indicated; he set himself to solve the suggested problem; and the result was a loom, theoretically capable of performing the three motions which are the essentials in weaving, but prac-

tically defective to an extent which rendered the invention useless. The doctor was not a weaver; he had not studied practically the nature of the material with which the weaver has to deal; and his loom lacked all those organs of sensation, if we may so speak, which the more perfect machine of modern times possesses, by which every slip or hitch in the working, caused by bad yarn or breakage, is either prevented or provided against, and which stop the loom when a "smash" is otherwise inevitable. The doctor could see the defects of his loom; but his want of practical knowledge denied him the power of remedying them, and the difficulties with which he long struggled proved to him insurmountable. It is surprising, however, on looking back, to see how near he came to the results of modern times.

Dr. Cartwright's first patent for a weaving machine is dated the 4th April, 1785, and of it he says: "It is worked by mechanical force. The warp, instead of lying horizontal, as in the common loom, is in this machine (which may be made to hold any number of warps at pleasure) placed perpendicularly. The shuttle, instead of being thrown by hand, is thrown either by a spring, the vibration of a pendulum, the stroke of a hammer, or by the application of one of the mechanical powers, according to the nature of the work, and the distance the shuttle is required to be thrown; and lastly, the web is taken up gradually as it is woven." The number and variety of the mechanical expedients to which the reverend mechanic appeals for aid in throwing his shuttle, shows the crude and imperfect notions he had of what was requisite to produce the desired result. In practice, as we learn from the details of his invention which have been preserved, Dr. Cartwright used *springs* for throwing the shuttle, and these springs were connected with a cylinder placed beneath the machine, which also gave motion to a lever, which reversed the shed of the warp. Successive improvements

made in the machine, and patented in 1786, 1787, 1788, and 1792, did not bring it the length of practical utility; and, after spending a fortune of between 30,000*l.* and 40,000*l.* in this and other mechanical projects, the doctor was rewarded with a Government grant of 10,000*l.*, in consideration of his inventions having led to the successful adaptation of machinery to weaving, which soon after came into general use.

Contemporaneous with these unsuccessful efforts to develop the powerloom in England, Dr. Jeffray, practising as a physician in Paisley, invented a loom which in principle was very similar to that of Dr. Cartwright. The leading feature in each was "that the shuttle and lathe were worked by the reaction of springs, and the power applied to them consisted in repressing them, so as to bring them into a state fit for reacting at the proper time." In one respect, the loom of the Scotch physician was superior to that of the English divine; and that was as to the means adopted for preventing the "smash" caused by the stoppage of the shuttle in the shed. A spring which kept the shuttle from recoiling when it entered the shuttle-box also supplied a motion which stopped the lathe when the shuttle was accidentally caught in its passage through the warp. But even this improvement did not entirely overcome the difficulty, and Dr. Jeffray's loom was never brought into practical use.

The man who first completed the improvements which made weaving by power practicable was Mr. Robert Millar, a calico printer by trade, and the manager of a print-field near Glasgow. He patented, in 1796, an improvement called the "protector," which stopped the loom altogether when the shuttle was prevented by any cause from accomplishing its passage from the one box to the other; and he substituted the direct action of the motive-power for the springs formerly used in throwing the shuttle. He had also a motion for taking up the cloth as woven. These improvements, which were still further

developed by Messrs. Radcliffe and Ross, Mr. Thomas Johnson, and Mr. H. Horrocks, all of Stockport, are features in all the power-looms which have since been made, and even in those models of mechanical skill, now exhibited in the Western Annexe of the International Exhibition, which present in so many respects such a striking contrast to the comparatively rude machinery for weaving which was in general use at the beginning of the present century. Millar's looms have been at work in Scotland until a comparatively recent period; and in the Great Exhibition of 1851, Mr. Joseph Harrison, of Blackburn, exhibited, in contrast with an improved loom of his own make, one of those antique and now almost unique machines. Of the contrast thus presented it is well said in the *Encyclopædia Britannica*: "It needs no great culture of the eye to have noticed in exhibitions of machinery how often and how strikingly improvements in power and efficiency are, at the same time, improvements in form and appearance." With the improved "power and efficiency" we have more to do than with the improved "form and appearance;" and what did that amount to? The loom of 1800 required the undivided attention of one operative to each warp, or, in special cases, five persons might tend six looms; but the loom of 1851 accomplished so much by itself, without the weaver's attention, and in spite of his carelessness, that two, and in many cases three, looms were worked by a single operative. On the loom of 1800 the most industrious operative could produce, in a week of sixty hours, no more than four pieces of printing cloth, twenty-five inches wide, twenty-nine yards long, and with eleven picks or shots of weft in the quarter inch; whereas, with the loom of 1851 twenty-six pieces of the same kind of cloth could be produced with equal facility. The remuneration of the operative of 1800 was 2s. 9d. per piece, for the description of cloth we have selected as an illustration, which made his weekly earnings 11s.; the price paid to the

operative of 1851 was only about 6d. per piece, but this made his weekly earnings 13s. These are proofs of increased "power and efficiency," which are not only demonstrable on paper, but have been felt in every household in the land, cheapening most materially an article of universal consumption, and at the same time benefitting pecuniarily those most concerned in its production. But to return to our historical sketch of the power-loom.

The improvements of Mr. Millar, which gave to his loom the name of "wiper," from the motion of the shuttle being effected by eccentric wheels of this description, and those of Mr. Horrocks, which gave to his loom the name of "crank," from this agency being the means made use of by him for working the lathe, were soon combined; and they are to be found, more or less improved and variously modified, in all power-looms. But these improvements, great as they were, and demonstrating as they did the practicability of weaving by power, did not dispose of all the difficulties connected with the manufacture of cloth by the power-loom. One process to which we have not yet referred, necessary in the hand-loom, and still more in the power-loom, is "dressing"—the application of starch or size to the warp to give the yarn such a stiffness and consistency as may enable it to stand the strain to which it is subjected in the process of weaving. In the old hand-loom the weaver "dressed" as much of the warp as was stretched from the back of the heddles, or healds, to the warp-beam, which might be about a yard. He then worked his cloth till the end of the dressed part came up to the heddles, when he again stopped and dressed a yard, and then resumed his weaving; and this process he had to repeat, throughout the whole length of his web, as every yard of warp was unrolled from the warp-beam. It is evident, that however little this might be considered an obstruction or a hindrance in the case of hand-loom weaving, it was quite incompatible with weaving by power. It would not pay the weaver

to stop his loom while he dressed a yard of warp; and the yarn would not stand the double strain of being dragged forward by the process of weaving, and pulled backwards by the process of dressing. This difficulty rendered almost nugatory for a time the comparative perfection to which mechanical ingenuity had brought the process of weaving. But the inventive genius of those interested in the progress and extension of manufactures was soon turned, and that successfully, to the consideration of the means by which warps could be dressed or sized by power, and given out to the weaver in a state which would obviate the necessity for dressing. And there was more to stimulate the progress of invention in this direction than the desire to test the capabilities and obtain the full benefit of the power-loom. The great and rapid improvements which had been made in spinning machinery, by which the production of yarn had been increased three or four hundred fold, demanded means of consumption for the produce of the mule greatly beyond the capabilities of the old hand-loom and the new power-loom. The greatest desideratum towards this object was a machine for "dressing" by power, and this was soon supplied, and improved by successive inventors, who gradually substituted "sizing" for "dressing," till the perfection had been attained which is now observable in the sizing machine known as the "slasher." It is foreign to our present purpose, and quite unnecessary, that we detail the successive improvements effected in machines for dressing and sizing, or that we describe the sizing machine now in general use. Let it suffice to say that by the use of these machines the weaver is saved the necessity for dressing his warp—yard by yard, as in the hand-loom, or in snatches and at irregular intervals, as in the first power-loom—and, being thus enabled to devote his whole attention to the process of weaving, makes greater progress in his work, and also makes better cloth. The invention of the sizing machine demonstrated for the first time, not the

practicability of weaving by power, but the capabilities of the power-loom; and since then each successive improvement, both in sizing machinery and in weaving machinery, has increased its productiveness.

But the important advantages of sizing and weaving by power were not recognised all at once. Machines for both purposes had been brought to a comparative degree of perfection in 1805; but in 1813, eight years after, it is estimated that not more than 2,400 power-looms, with about 100 sizing machines, were in use in all parts of the country. From 1813 to 1820, the number of power-looms increased in a more rapid ratio, there being then upwards of 14,000 in use in England and Scotland. In 1830, the number had increased to 60,000; and in 1833, to 100,000—this latter figure showing the rate of increase to have been greatly accelerated during the three years from 1830 to 1833. But there was sufficient in the daily augmenting productive power of the loom to justify this great and rapid increase. The shirting, of which a good hand-loom weaver of full age and strength could weave only *two* pieces per week, could, in 1823, be produced by two power-looms, attended by a youth of fifteen, at the rate of *seven* pieces per week, and in 1826 at the rate of *twelve* to *fifteen* pieces per week; while, in 1833, a weaver of from fifteen to twenty years of age, with the assistance of a girl of twelve, could produce from four looms *eighteen* or *twenty* pieces per week.

Another index of the great and rapid extension of the cotton manufacture during the period embraced in the above comparison, is the official returns of the imports of cotton wool. In 1803, the quantity of cotton wool imported into this country, and consumed in our manufactures, was upwards of 52,000,000 lbs.; in 1823, the consumption was upwards of 186,000,000 lbs.; and in 1833, it had increased to about 294,000,000 lbs. But we must return to the power-loom, and note, although it may be hurriedly, the progressive steps by which its present perfection was attained.

The loom of 1862 is a striking contrast to that of 1833. In general appearance the two machines may not be so dissimilar, or present so great a contrast as that which is observable between the loom of 1800 and that of 1851; but in many points of detail the loom of 1862 has been so improved—by modifications and additions which may singly be comparatively unimportant, but in the aggregate amount to almost a revolution in its mode of operation as a machine for weaving—that the progress made during the last thirty years must be considered quite as important as that which resulted in the development of the loom of 1800 into that of 1851. The first improvement to be noticed is that beautiful expedient for stopping the loom when the weft-thread breaks. It is evident that, when a weaver has three or four looms to attend, he cannot always notice on the instant the breakage of the weft-thread; and, should the loom continue working for even half a minute after the weft has broken (at the rate of, say, only 150 picks or shots per minute), the cloth-beam, by the motion which regulates its movements, will have taken up an inch to an inch and a half of the warp before it has received the weft necessary to make it into cloth. In such a case the weaver would be under the necessity of "letting back" his web, so as to resume working at the exact spot where the weft-thread broke, and this would prove a very great hindrance to him in the case we have supposed, of his having three or four looms to attend. But mechanical ingenuity having devised, and mechanical skill having successfully adapted to the power-loom, a peculiar motion, endued with sufficient sensibility to know when the weft-thread breaks, and sufficient power to throw the loom out of gear and stop, almost in an instant, all its rapid and complicated movements, the weaver is apprised of the breakage the moment it occurs, and is enabled to remedy the defect with the least possible loss of time. The first expedient for this purpose was the invention of John Ramsbottom and Richard Holt, of Tod-

morden, who, among other improvements in power-looms patented by them in 1834, had a "contrivance for stopping the loom on the breaking of the weft-thread." The details of this invention can hardly be made intelligible without the aid of a diagram; but its general principle may be understood, if we say that it consisted of what the patentees called "hands and fingers"—a sort of lever, so placed that the "fingers" rested on, and were supported by, the weft when the loom was working and all was going right, and fell down when the weft broke and the support on which they rested was thus taken away. The effect of the "fingers" falling down was to disconnect a lever, which caused the next stroke of the "slay" (which contains the reed, and by the movement of which the weft is beaten up) to throw the driving-strap on to the loose pulley, and so stop the loom. The same patentees had also an improved contrivance for stopping the loom when the shuttle failed to reach the opposite box. These contrivances were improvements on the power-loom, but practically of no great value, except as paving the way for subsequent inventions. So far as regards the stoppage of the loom when the weft-thread breaks, the "hand and fingers" were superseded by the motion invented and patented by Messrs. William Kenworthy and James Bullough, both of Blackburn, in 1841. The superiority of this later appliance consists in the certainty and promptness with which the object in view, the stoppage of the loom for the preventing of damage, is secured. The patentees style their apparatus "the weft-watcher, or detector;" and it well deserves the name, for, with unerring certainty, on the breakage or absence of the weft-thread, it instantaneously disengages the "taking up" motion, and entirely stops the loom. The "detector" bears a general resemblance to the "hands and fingers," to the extent that the absence of the weft-thread, releasing the lever over which it passes while the loom is working, is the "prime mover," if we may so speak, in the stopping of the loom; but the

invention of 1841 has the decided advantage over that of 1834, in respect of the means by which the rising of a delicately constructed lever—so delicate that a thread fine as gossamer holds it in check—effects the almost instantaneous stoppage of the whole machinery of the loom. The contrivance of Messrs. Kenworthy and Bullough has not been superseded by the ingenuity of any subsequent inventor, and all the improvements since effected in it are simply such as are owing to the superior skill and workmanship displayed by the different makers of looms.

To Mr. James Bullough is also due the credit of another invention, patented in 1842, for the prevention of damage and the stopping of the loom when the shuttle is caught in the shed. The contrivance for this purpose, patented in 1834, was not found to be always effective; but the importance of preventing the great damage to the web which was inevitable when the slay, with the reed, beat up the shuttle instead of the weft shot, prompted and justified great efforts to remedy the evil. Mr. Bullough effected this desirable object by the invention of the "loose reed"—a contrivance by which the reed is "carried by a spring cap and swivels in the top rail" of the slay; and thus, when the shuttle is caught in the shed, the reed is forced back and acts upon levers which stop the loom. This is an arrangement by which all uncertainty of action is done away with. The reed can never fail to be acted upon by the shuttle when it is in the shed; and there is a mechanical certainty that the movement of the reed will operate effectually on the levers connected with the stopping motion. We need only remark further on the subject of the loose reed—which is applicable to all the lighter kinds of cloth, up to cloths having eighteen to twenty picks in the quarter inch—that it has enabled looms to be worked much quicker than was previously practicable. A forty-inch loom, for instance, which before the invention of the loose reed might be worked at the rate of 120 picks per

minute, could afterwards be worked at 180 to 200 picks per minute, or at an increased speed of more than fifty per cent; and further improvements have since increased the practicable speed at which the same loom can be worked to about 230 picks per minute.

But the loose reed is not applicable to the weaving of heavy fabrics. The force with which the weft in the heavier class of goods requires to be beaten up is greater than could be applied with a slay fitted on the loose-reed principle. The looms, therefore, for weaving cloths of a coarser quality than eighteen to twenty picks in the quarter inch are all fitted with fast reeds, and it is left to an application termed a "stop-rod" to throw the loom out of gear when the shuttle is prevented, from any cause, from completing its course through the warp. This "stop-rod" is acted upon by the shuttle as it arrives at each end of the slay; and, on its failing to arrive at either end, the "stop-rod" falls upon a moveable bracket and instantly stops the loom. But this sudden stoppage of the loom, in the first application of the "stop-rod," was attended by a great shock, which caused damage, not only to the warp but to the loom itself; and, as the "stop-rod" proved in practice very uncertain in its working, the mishaps it was intended to guard against were not always prevented. This led to another improvement of considerable importance as applicable to fast reed looms—an improvement which goes by the name of the "break," which was patented by Mr. John Sellers, of Burnley, in 1845, and by which the loom can be stopped instantaneously, whatever the speed at which it may be working, without the great shock to the machinery which the "stop-rod" produces when used without the "break." These several contrivances for stopping the loom, the most of them self-acting, requiring neither the presence nor the intervention of the weaver, effectually obviate the mischief which would otherwise be inevitable, and which, in the absence of these mechanical appliances, the most

watchful vigilance, supposing no more than one loom was under the care of each operative, would be powerless to prevent.

We must now notice the "taking up" and the "letting back" motions. We have already referred to the tedium of the process which compelled the hand-loom weaver, as every two inches of cloth were woven, to stop his loom and "draw the bore," and then adjust the warp to the proper degree of tension. Contrivances which, in view of more modern inventions, must be characterised as rude, superseded this method of winding the cloth on the beam, but they were far from securing uniformity in the make of the cloth, the quality of which was left largely dependent on the skill and care of the weaver. The importance of the "taking up" motion in securing uniformity in the texture of the cloth will be apparent, if it is considered that every stroke of the slay (180, or, it may be, 250 per minute) brings the reed, by which the weft-shot is beaten up, forward towards the cloth-beam to precisely the same spot; and this requires that the web be pulled on to the cloth-beam the length of a pick (which may be the eightieth or the hundredth part of an inch), as each shot is beaten up, or 180 to 250 times per minute. These conditions, severe as they are, have been secured by the "taking up" motion introduced by Messrs. Kenworthy and Bullough in 1841, and which has never yet been superseded. In this motion change wheels are made use of, which secure, with the greatest nicety, that any given number of picks shall be put in each inch of the cloth. And this it secures with a mechanical accuracy which is in no way dependent on the weaver—who, either for the purpose of getting out more cloth, or from carelessness, might vary the number of shots per inch, and so produce a fabric which would be unsaleable on account of the irregularity of the texture. Closely connected with the "taking up" motion is the "letting-back" motion, a simple expedient by

which the web can be let back any number of picks which the loom may have worked after the breakage of the weft-shot, that the beating up of the slay may be resumed at the exact spot it left off when the weft broke, and so the unseemly blemish of "gaws" in the cloth may be prevented.

Another important part of the power-loom is the "temple," which keeps the cloth stretched to the proper width, and which requires to be, like everything else connected with a loom driven by power, self-acting. In the hand-loom the temple was of wood, flat and hinged in the centre, with a button which kept the hinge locked while the loom was at work. The length of the temple was the breadth of the cloth, and a series of small spikes or needles at either end, caught in the selvage of the cloth, kept the web at the proper width. The shifting of the temple was a great hindrance to the weaver, as it required to be shifted every time the "bore" was drawn, or after every two inches of cloth he wove. In the power-loom such an appliance would be perfectly useless. In the earliest efforts to construct a temple adapted to weaving by power, metallic discs were made use of, with small spikes or needles on the periphery which caught in the selvage of the cloth and thus kept it stretched at the required breadth. As the cloth was pulled forward on to the beam by the action of the "taking up" motion, the discs revolved, and fresh spikes took the place of those which were thus disengaged from the selvage, so as to keep the cloth always stretched. This was the characteristic of the self-acting temple invented by that ingenious mechanic, Mr. James Smith, of Deanston, who had the spikes or teeth in his discs set at a slight angle, in a direction outwards from the fabric, so as to give them a better hold on the selvage. It was a very successful invention, and very extensively used till superseded by the "roller-temple" invented by Messrs Kenworthy and Bullough in 1841. This contrivance was

"a small roller, covered with fine sand, "emery, or other rough surface, revolving "in a semi-circular trough or casing;" and the cloth passing under the roller and between it and the casing, was transmitted of a parallel and uniform breadth to the cloth beam. An improvement effected on this roller temple by the late Mr. John Raitlon, of Blackburn, was patented by him in 1842. In this improved temple two or more rollers or bars are used, which are chased with a screw-thread, one half right-handed and the other left-handed, and also fluted, so as to present "a continuous surface of small points or pins." The cloth, being led over one roller and under the other, is kept distended tightly and transmitted over the breast-beam to the cloth roller. Another temple, combining the features of Mr. James Smith's and Messrs. Kenworthy and Bullough's patent, was invented and patented in 1852 by Messrs. John Elce, of Manchester, and John Bond, of Burnley. In this invention "two or more rollers" are used, as in Messrs. Kenworthy and Bullough's, and they are covered with "rowels," and provided with guards and shells, so shaped "that "the fabric to be distended in the loom "is carried about half round each of "the rollers." But the temple which has stood best the test of experience, and is now in most general use, is the "trough and roller temple" of Messrs. Kenworthy and Bullough.

These several improvements, with others of lesser note, due to the varying skill and ingenuity of the different makers, are to be seen in the looms exhibited in the Western Annexe of the Exhibition Building. One loom there, made and exhibited by Messrs. W. Dickinson and Sons, of Blackburn, has the merit claimed for it of great speed, which is due to a peculiar kind of crank, the patented invention of Mr. W. E. Taylor, of Enfield, near Accrington. But the only complete series of weaving machinery for the cotton manufacture is that exhibited by Messrs. J. Harrison and Sons, of Blackburn, the same firm

whose looms attracted so much notice in the Exhibition of 1851. It is only with their looms, however, that we have at present to deal, and we select them as illustrations of the various improvements of which we have been speaking, because they are all adapted to the weaving of plain cloth (to which we have throughout this article limited our attention), and because the adaptation of the various parts of the loom to the weaving of cloth can be there seen in the greatest perfection. We have also another reason for selecting the looms of Messrs. Harrison as illustrating this paper, and that is, because they are just such looms as are in most general use in the great manufacturing districts of Lancashire and Cheshire, where in ordinary times thousands of operatives find profitable employment in weaving upon them the plain cloth which forms the staple trade of the country, but where unfortunately now, through the scarcity of cotton, many are suffering privations on account of the shortened hours of labour, and many more are in positive want from a total cessation of employment.

In addition to the improvements noticed above as those which constitute the grand features of the modern power-loom, the looms of Messrs. Harrison are fitted with a new treading motion (for working the healds or heddles), whereby a better shed of the warp is secured for the passage of the shuttle. One result of this improvement is, that the loom can be worked at a greater speed without any absorption of power; and another important object which it secures is economy in the wear and tear of healds, the expenses of which are an important item in the manufacturer's cost-book. In the loom for light fabrics, fitted with a loose reed, the "taking up" roller is of sheet-iron, covered with composition, instead of the ordinary wood roller covered with emery. The advantage of this substitution of an iron for a wood roller is, that it is not affected by change of temperature. In the loom for heavy fabrics the "taking

up" roller is of cast-iron, to which the necessary roughness of surface is imparted by its being fluted and chased. It is also adapted for the weaving of wetted weft by being painted. This loom is fitted with Sellers' "break" for stopping the loom (as already noticed), and with a "vibrator," which enables the warp to give a little whilst the healds are forming the shed, and thus moderate the strain which might otherwise result in breakage. But it is time to leave mechanical details to glance at the rapid increase in the number of power-loom, and at their enormous production.

In the early days of the cotton manufacture, and indeed up to a very recent period, no steps were taken to obtain full and reliable statistics of what is now the staple industry of the country. The only approach to statistics on the subject are the figures supplied by the Customs' returns; and these merely furnish, and in only a very summary manner, information of the quantities

of yarn and cloth imported and exported year by year, and of the gradually increasing quantities of cotton wool required to supply our increasing powers of consumption. They afford no information with respect to the employment of the people in the cotton manufacture; nor can we gather from them any very definite idea of the rapid strides by which the cotton trade has attained to its present extraordinary dimensions. We have already remarked that the number of power-loom estimated to be in use in England and Scotland in 1833 was 100,000. As the data for noting the progress of the trade from the date of this conjectural estimate are, during many subsequent years, more or less conjectural, it may suffice if we take a leap at once to the year 1850, when the number of factories, spindles, and looms, and of persons employed in the spinning and weaving of cotton, as shown by official returns, was as follows:—

1850.

LANCASHIRE.	No. of Factories.	No. of Spindles.	No. of Looms.	Power.		Numbers employed.		
				Steam.	Water.	Males.	Females.	Total.
Spinning only .	517	6,110,074	—	16,102	1,340	26,165	29,847	56,012
Weaving only .	196	—	31,875	2,538	152	8,045	11,629	19,674
Both Spinning and Weaving }	436	7,766,991	143,690	27,612	1,820	61,125	74,135	135,260
Total in Lancashire . . . }	1,149	13,877,065	175,565	46,252	3,312	95,335	115,611	210,946
Total in England	1,531	18,740,802	221,360	61,302	7,465	127,424	152,285	280,909

These figures show most strikingly how completely the cotton trade was at that date centred in Lancashire, there being then about three-fourths of the total number of spindles, and about four-fifths of the total number of power-loom in the kingdom at work in that

single county; and, out of a population of two millions, no less than 210,946 were employed in the spinning and weaving of cotton. The progress of the trade during the next ten years will be seen from the following similar tables for the years 1856 and 1861:—

1856.

LANCASHIRE.	No. of Factories.	No. of Spindles.	No. of Looms.	Power.		Numbers employed.		
				Steam.	Water.	Males.	Females.	Total.
Spinning only .	591	12,111,954	—	22,295	1,037	31,339	37,121	68,460
Weaving only .	344	—	58,822	5,321	113	14,168	22,768	36,936
Both Spinning } and Weaving }	516	8,115,243	165,531	34,154	1,495	66,561	86,363	152,924
Total in Lancashire . . .	1,451	20,227,197	224,353	61,770	2,645	112,068	146,252	258,320
Total in England	1,952	25,818,576	275,489	79,294	6,513	146,590	190,990	337,580

1861.

LANCASHIRE.	No. of Factories.	No. of Spindles.	No. of Looms.	Power.		Numbers employed.		
				Steam.	Water.	Males.	Females.	Total.
Spinning only .	727	11,072,899	—	73,284	1,319	37,571	42,876	80,447
Weaving only .	571	—	116,446	13,627	183	22,077	34,552	56,629
Both Spinning } and Weaving }	565	10,457,633	189,977	113,326	1,828	73,877	98,129	172,006
Total in Lancashire . . .	1,863	21,530,532	306,423	200,237	3,330	133,525	175,557	309,082
Total in England	2,472	28,351,745	366,822	259,163	9,112	170,167	223,762	383,929

What must strike the most cursory student of these figures is the enormous increase of spindles and looms, especially in Lancashire, during the interval from 1850 to 1856. It will be seen that the number of spindles increased fifty per cent., from thirteen to twenty millions; and about fifty thousand were added to the number of power-looms. In 1856 Lancashire contained a million and a half more spindles than were at work in all England in 1850; and the number of power-looms in Lancashire in 1856 was three thousand in excess of the number in the whole of England in 1850. A striking increase, although not in so great a ratio, is observable on a comparison of 1861 with 1856. The number of spindles in Lancashire increased during that interval only about

a million and a quarter, but the number of power-looms was increased by about eighty-two thousand, making the number in Lancashire in 1861 about thirty-one thousand in excess of the number in all England in 1856. It will be seen, also, that Lancashire contained in 1861 five-sixths of all the power-looms in England. To these statistics of the cotton trade in England we may add, that the quantity of cotton requisite to keep the spindles and looms of the United Kingdom at work is about one thousand million lbs., the cost of which, in ordinary times, is from 28,000,000*l.* to 30,000,000*l.*; and of this enormous quantity, required by the United Kingdom of Great Britain and Ireland, Lancashire takes about eleven-twelfths. With the produce of this cotton the daily wants of our home

population—which, for an article of such universal consumption as calico, is no trifle—are amply supplied, and we export annually yarns and cloth to the declared real value of nearly 50,000,000/. Such is the trade which the fratricidal war in America has temporarily laid prostrate.

These figures, showing the greatness and importance of the cotton trade of England, show also the importance of that branch of it which is the subject of this paper. It will have been observed, from the notices which have been given of the ingenious mechanicians by whom the power-loom has been brought to its present state of perfection, that the major part of the inventions which have turned out improvements of practical utility, originated in Blackburn and neighbourhood; and it will in consequence have been surmised, and not unnaturally, that Blackburn must be the great weaving centre of Lancashire. And so it is. So far back as 1650, Blackburn was famous for the manufacture of what were known in the trade as “Blackburn checks”—a species of cloth consisting of a linen warp and cotton woof, one or both of which being dyed in the thread gave the piece, when woven, a striped or checked appearance. This fabric was afterwards superseded by the “Blackburn greys,” so called because the materials of which it was composed were not dyed, but the cloth when woven was sent to the printers unbleached, or in the “grey” state. And Blackburn has ever since (except when the operatives, sharing in the ignorance which was at one time general with respect to the probable effects of improvements in machinery, resorted to measures of violence in order to protect their interests, which they believed to be in peril) maintained a foremost place as a manufacturing centre, and now boasts a weekly yarn market which is second only to that of Manchester. Within the borough boundary (containing a population of about 63,000), and including the suburbs of Witton and Livesey, which should rather be regarded as part of the town of Blackburn than out-lying townships (with an

additional population of between 3,000 and 4,000), there are 36,000 power-loom, or about one-tenth of the total number of power-loom in England. And if Blackburn be taken as a centre, the number of power-loom to be found within a radius of five miles is about one-sixth of the whole number of power-loom in England. These facts and figures will justify us in soliciting the companionship of our readers on a flying visit to Blackburn, for the purpose of peeping into some of its weaving factories, and ascertaining, within a compass that may be comprehensible, the productive capabilities of the power-loom, and the facilities possessed for almost indefinite extension.

Here we are then, after a journey of seven to eight hours from the metropolis, in the borough of Blackburn, which is solely a manufacturing town, but a most busy and enterprising one, with a fine town-hall and market-house, and a most picturesque park. An introduction to the two M.P.s. for the borough, Mr. W. H. Hornby and Mr. James Pilkington, gives us free access to their respective establishments, at Brookhouse and Park Place, in both of which there is spinning as well as weaving. In the Brookhouse mills we find about 1,500 looms, and in the Park Place mills about 1,200. We have also the *entrée* to the spinning and weaving establishment of the mayor of the borough, R. H. Hutchinson, Esq., who is head of the firm of Robert Hopwood and Son, of Nova Scotia Mill, one of the largest in the town, and an object of mark to the passing traveller by the tallness of its chimney. Here we find upwards of 1,500 looms, from which are produced such calicoes as have secured for the firm “honourable mention” by the jurors of the International Exhibition. The sensation produced by the sight and sound of 800 or 1,000 looms at work in one immense shed, is what cannot be described. It is something bewildering beyond conception by any but those who have stood, as we have, in such establishments as those we have named. With sensations, how-

ever, we have nothing to do ; it is with facts we are dealing. And what are the facts connected with the production of a thousand power-loom such as we have described, fitted with all the most recent improvements, and weaving the same sort of plain cloth as we have already referred to—twenty-five inches wide, with eleven picks to the quarter inch ? Each loom will produce eighty yards of cloth in a day of ten hours ; which makes the daily production of the thousand looms 80,000 yards, or $45\frac{1}{2}$ miles. In a week of six days the cloth produced by the thousand looms would measure 273 miles ; and in a year of fifty weeks, 13,650 miles, or more than half the circumference of the globe. In another aspect, viewed with regard to its clothing capabilities, this enormous production from a thousand looms, of 24,000,000 yards of cloth per annum, is clothing for a population of nearly 500,000 people, allowing each man, woman, and child an annual consumption of fifty yards. If the production of a thousand looms be capable of clothing so many, what population must be required to consume the production of the 306,000 power-loom to be found in Lancashire ? And how must the clothing of the world be pinched by their stoppage through the want of cotton ?

A few steps from the mayor's mill is the foundry of Messrs. Harrison, from whose looms, as exhibited both in the present Exhibition and in that of 1851, we have drawn our illustrations of the progress and present perfection of the power-loom as adapted for plain weaving. At this establishment, not only looms, but all the various kinds of machinery used in the preparation of the yarn for weaving, are manufactured on the largest scale ; and the visitor interested in the cotton manufacture cannot fail to be gratified with what may be seen in the course of even a cursory inspection. To looms, and preparation machinery, the attention of this firm has been directed from its first establishment, and hence the facility with which

from 180 to 200 looms per week, or a loom in twenty minutes, can be turned out, each and all of them just such machines as are exhibited under their name in the Western Annexe of the Exhibition Building ; and hence, also, the perfection in construction with which such rapidity in production is combined in the looms manufactured by Messrs. Harrison. In the six years following the Exhibition of 1851, during which period, as appears from the official tables we have given of the progress and extension of the cotton trade, an addition of 54,000 was made to the number of power-loom in England, Messrs. Harrison constructed, for home and foreign customers, no less than 24,000 looms ; and they are now in a position to turn out looms, with the necessary preparation machinery, at the rate of 120 per week, or a loom during each half-hour of working time. But, were they turning their whole establishment on to looms alone, the production could be increased to 200 looms per week, or a loom, as we have already said, in rather less than twenty minutes.

With such enterprise as these facts and figures display, the pre-eminence which Lancashire enjoys as the seat of the staple trade of the country is not to be wondered at ; and it would be difficult, if not impossible, for any other district of England, or any other country in the world, to supplant Lancashire in a manufacture which once belonged to India, but which she has now made her own. The trade has had an unprecedentedly rapid extension—an extension which justified such preparations as have been made for its further development ; but it is now suffering a fearful reverse, from a cause as unprecedented as it is disastrous. And it must be the earnest prayer and fervent hope of every one who considers the subject of the present distress in either its commercial or social aspect, that the 300,000 looms of Lancashire may soon be at work again, sending forth their 13,000 miles of cloth per day for the clothing of the nations of the world.

HUMAN VEGETATION.¹

BY THE REV. HUGH MACMILLAN, F.R.S.E., AUTHOR OF "FOOTNOTES FROM THE PAGE OF NATURE."

It cannot possibly escape the notice even of the most unobservant, that the tendency to vegetate is a power restless and perpetual. It has been in operation from the earliest geologic ages, as evinced by the fossil remains found in the most ancient rocks. Like a palimpsest, the successive strata of the earth have been covered with successive races of plants, destroyed by earthquakes, volcanoes, and torrents, but leaving their imperishable relics behind, and again restored, in full luxuriance, by the play of the life agencies. Wherever an igneous rock was upheaved into the sky by some internal convulsion, its bare sides and summit were speedily covered with vegetation; wherever the water retired, leaving its sediment behind, the dry land thus formed became, in a wonderfully short space of time, clothed with verdure. From pole to pole, each stratum of soil, as soon as deposited, was adorned with a rich exuberance of plant-life. Nor is the layer of Nature's floral handwriting which now appears on the surface less extensive, as compared with the page, than the buried and partially obliterated layers beneath, though the characters be less grand and imposing. The earth has lost much of its primeval fire, and has toned down the rank luxuriance of its green and umbrageous youth; but it still retains a considerable portion of the vigour which characterised it during the first great period of organised being—the period of herbs and trees "yielding seed after their kind." The whole face of the earth, and almost every object which belongs to it, is still strangely instinct with vegetable life. Coeval in its origin, it is everywhere present with its indispensable conditions. Burn down the forest, or plough the meadow, and from

the new soil thus exposed springs up spontaneously a new crop of vegetation. Hew a stone from a quarry, and place it in a damp situation, and shortly a green tint begins to creep over it. Construct a fence of wooden rails round your property, and in a few months it is covered with a thin film of primitive plants. Expose a pot of jam, or a piece of bread, or any decayed vegetable or animal matter, to the air, and in a day or two it will be hoary with the grey stalks and powdery fructification of the common mould. Dam up a stream or the outlet of a lake, and convert it into a stagnant pond, and in a week or so its sides and bottom are covered with a luxuriant growth of green *confervæ*, which go on increasing until the water is choked up with vegetable matter, and becomes converted into a bog. How rapidly does Nature bring back into her own bosom the ruin which man has forsaken, harmonizing its haggard features with the softer hues and forms of the scenery around! How quickly does the newly-built wall, which offends the eye by its garishness, become, by the living garniture of mosses and lichens that creep over it, a picturesque object in the landscape! Nature, faithful to her own law—"Be fruitful, and multiply, and replenish the earth"—crimsons even the cold and barren surface of the arctic or alpine snow with a portentous vegetation. As if there were not room enough for the amazing profusion of plant-life, she crowds her productions upon each other into the smallest compass, and makes the highest forms the supporters of the lowest. Every inch of ground, however ungenial its climate or unfavourable its conditions, is made available; every object, however unlikely at first sight, is pressed into her service, and made to bear its burden of life; and thus, the grandly wild Platonic myth of

¹ Des Végétaux qui croissent sur l'homme et sur les animaux vivants. Par M. Robin. Paris. 1862.

the *cosmos*, as one vast living thing, is, not altogether without foundation.

One of the most remarkable examples of this universal diffusion and plastic power of vegetation is seen in the occurrence of a peculiar flora on living bodies. The irresistible torrent of vegetable life, overflowing the whole earth and every inorganic object upon its surface, has not left uninhabited the domains even of animal life. In its effort to extend itself, it has overleaped the barriers imposed by nature upon the law of propagation, and sought to establish a footing in a strange region, foreign to all its conditions and aptitudes. Several kinds of plants vegetate on the bodies of living insects, such as the wasp, the sphinx, and the may-bug. The story of Sindbad and his old-man incubus, has its counterpart in the vegetable kingdom; for it is by no means rare to observe bees flying about in summer, loaded with a yellow club-shaped plant, almost as large as themselves, protruding from their heads, of which they cannot divest themselves by any effort. The disease called muscardine, so injurious to silkworms—the mouldiness with which the common house-fly is attacked about the end of autumn—the white slime which covers the sides of gold-fishes, are all vegetable growths which spring up with great rapidity, at the expense of the vital fluids of the animals they infest, converting their bodies into solid masses of white vegetable filaments. In a large number of animals, including caterpillars, beetles, grasshoppers, reptiles, eider-ducks, and animals still higher in the scale, a luxuriant growth of entophytes has often been found. In fact, animals of feeble organic activity, using solid food which is very slowly digested and contains little nutriment, are rarely, if ever, free from these parasites. Nor is man himself exempt from their attacks, although his vigorous organization, his habits of personal cleanliness, and the cooking process to which he subjects his food, are, in the main, inimical to the development of parasitic vegetation. Possessed of a material structure, he is necessarily subjected to the same

organic forces which operate throughout the wide field of nature; and the law which regulates the increase and spread of vegetable life shows no greater deference to him, than to the humblest caterpillar, or the stone from the quarry. It regards his animal body, notwithstanding its wonderful and complex formation, simply as a convenient surface on which to carry out its destined ends. Just as the tree is made the basis of support to the lichens which clothe its trunk with their shaggy rosettes, to the mosses which weave their emerald bracelets round its boughs, and to the fungi which seek out and luxuriate on its decayed parts, so is the human body made the matrix of several vegetable parasites, some of which are symptomatic of general debility or local disease, and others are found on the healthiest subjects. Almost every part of the body is infested with some form or other of this strange growth. Literally, from the crown of the head to the sole of the foot, internally and externally, man is made the victim of this vegetable vampyrium. One of the most fearful pictures which the vivid imagination of Dante created out of the gloom of the infernal regions, is that of the living forest into which certain wicked men were transformed, every bough and leaf of which was endowed with human vitality, emitted a wailing cry of pain, and exuded drops of blood when broken or injured. This extraordinary idea may have been absolutely original—an inspiration of the poet's own fancy; but it is not improbable, as most of the images under which he represents his abstract thoughts were taken from the characters and events of his time, that it was suggested to him by some ancient botanical treatise. At all events, this singular metamorphosis is only a poetical exaggeration of an appearance often produced on certain parts of the human body by vegetable parasites. The recent excellent work of M. Robin, which contains in a compact and systematic form all that has been hitherto discovered upon the subject, describes about a dozen kinds of parasitic plants to which man is liable; but, as

the author's range of observation has been principally confined to the inhabitants of Europe, there is every reason to believe that he has not exhausted the subject. The manners and occupations, as well as the food, of the inhabitants of tropical regions, are peculiarly favourable to the production of these abnormal growths, while the heat and moisture of the climate stimulate them into excessive development. Hence, when more particular attention is paid by travellers to this obscure department of research, new and strange diseases caused by plants will, in all likelihood, be found comparatively common in these countries. All the forms of human vegetation hitherto discovered are supposed by some of our ablest naturalists to have a common origin, and are consequently referred by them to one species, which is possessed of singularly protean qualities, and is able to accommodate itself to almost any situation, however different from that which it usually affects in its normal form. Such individuals not only maintain the identity of all human diseases caused by plants, but also assert that there is no vegetable growth infesting any animal body, however high or low in the scale of organization, which is not referable to one primitive form. Whether this be not carrying the Darwinian theory, in this particular application of it, a little too far, we are not yet in a position positively to say; but certainly, the more intimate and extended our acquaintance with the plant in question, the more remarkable do we find its range of variation, while by a series of experiments made to trace its growth through successive stages of development on different substances and in altered circumstances, we have acquired several links in the chain of evidence towards establishing the truth of the opinion. The common mould, so familiar to every one as covering, with its greyish or greenish flocculent crust, damp walls, old shoes, and almost any substance, in dark ill-ventilated places, and which is the plague of the economical housewife, invading her pantry and defiling her cherished preserves, is sup-

posed to be the many-headed hydra, the cause of all the mischief. As the appearances which it presents on different parts of the human body, however, are so very distinct and remarkable, it may be interesting to give a brief detailed description of them, under the separate names given to them by those who affirm that they are not local modifications of one and the same plant, but different and peculiar species.

Beginning with the human head, it might seem the height of presumption for vegetable aspiration to strive to establish its dominion on the dome of thought, the palace of the soul. But this object it has attained, and the crown of man is actually brought into subjection to the vegetable kingdom. Whatever the character or quantity of the brains beneath may be—whether intellectual or Boeotian—the crania of the philosopher and the fool indiscriminately afford a resting-place and pabulum for the lowest forms of vegetable life. Utterly regardless of Gall and Spurzheim, they luxuriate on the bumps which indicate the intellectual faculties, as well as on those which point out the animal propensities. They have no greater respect for the iron-grey head of the sage, filled with the accumulated wisdom and experience of half a century, than for the bald pow, with its indefinite silky floss, of the little child. So very variable are the appearances which this vegetation produces on the head that it has received no less than twenty different names. It is most commonly known, however, under the scientific synonyms of *porrigo*, *herpes*, *alopecia*, *tinea*, and popularly as scald-head and ring-worm. Some forms of it attack children almost exclusively, and are found only among the poor, where there is not sufficient attention paid to cleanliness, while others occur at all ages and in all ranks and conditions of society. The effects which it produces are no less variable than its forms, ranging from the small brown scurfy spots, which at a certain period cover the head of every child, and which a few vigorous applications of soft soap and water will remove,

to those extreme cases where it disorganizes the whole structure of the scalp, and seriously affects the general health. Its varying appearances and effects are in all likelihood caused by the different stages of development of the plant, its greater or less abundance on the parts affected, and the more or less favourable circumstances in which it is placed. The form which it most frequently exhibits is that of rounded patches of thick yellowish scales marked by numerous depressions, at first very small, but gradually increasing and invading larger surfaces. The hairs on the parts affected are dull, dry, and colourless, exceedingly brittle, and easily extracted, broken off close to the skin, and covered with greyish-white dust. It is described with sufficient accuracy by Moses in the 13th chapter of Leviticus: "If a man or woman have "a plague upon the head or the beard; "then the priest shall see the plague: "and, behold, if it be in sight deeper "than the skin; and there be in it a "yellow thin hair; then the priest shall "pronounce him unclean: it is a dry "scall, even a leprosy upon the head or "beard." Examined under the microscope, the hairs are found to be considerably swollen, with nodosities here and there produced by masses of sporules or seedseembedded between the longitudinal fibres. The bulbs are flattened or destroyed altogether; the ends have a very ragged appearance, resembling in miniature the ends of a piece of wood which has been broken across; while the medullary portion, or the pith of the hair, is quite disorganised, owing to the pressure of the plant, which appears enveloping it, either as isolated spores or as chains of cells. The disease may last an indefinite length of time, but it usually terminates in the obliteration of the hair-follicles, and permanent baldness of the affected parts. It is far more severe in foreign countries than in this; instances being numerous where it has completely removed the hair from the whole head, eyebrows, and beard, leaving them perfectly smooth and naked, impairing the constitution when

so extensively developed, and, when children are the subjects, arresting their growth. A very formidable type occurs frequently in Poland, under the name of *Plica polonica*, characterised by acute inflammation of the scalp. The hair is swollen, matted together into a compact mass, sprinkled over as with flour with the germs of the fungus, and endowed with such exquisite sensibility that it can scarcely bear to be touched; while, strange to say, the disease seems to be aggravated by cutting the hair. The same parasitic plant, the *Acorion Schönleinii*, which causes all these abnormal appearances on the human head, also infests the skin of the mouse; and produces in both cases a peculiar odour by which its presence is easily recognised.

It is a subject of frequent remark that alopecia or baldness is much more common now than it used to be, not only among old men, but even among youths and persons of middle age. The advertising and purchasing of all kinds of hair manures and stimulants seems to be a feature of the times—a universally recognised necessity of social and domestic economy. Our hardy and unruly ancestors, being often exposed to the risk of hard blows, acquired, by a process of natural selection as it were, a remarkably strong and hirsute head-covering, from which cudgel and mace rebounded as from a feather pillow, and which stood in no more need of Macassar oil or Bentham's capillary fluid, than a hedgehog's prickles. But now, when the fighting is all done in print, which breaks no bones—when martial valour explodes more frequently in vehement speech-making than in crunching the head of an adversary, and even Donnybrook Fair is a tradition of the past—nature seems to have recalled her gift, there being no necessity for its use; and there is a general landslip of hair from the superior to the inferior parts, from the head to the cheek, lip, and chin. A great many ingenious and occult reasons have been assigned in explanation of this curious phenomenon. Some advocates of the development theory attribute it to the degeneracy of the times, as if the human

form were taking a retrograde step towards the bare molluscous condition from which it originally sprung; others take an exactly opposite view, and consider it a sign of the progress of the race, a proof of the great intellectual activity of the age. By a few incorrigible jokers it is regarded as a kind accommodation of nature to the manipulating convenience of that useful and important class, the phrenologists; while the respectably-uncomfortable head-gear, which people will persist in wearing, in despite equally of the law of æsthetics and the law of storms, comes in for a share of the reproach. Perhaps after all, the *savants* may be right, unwelcome as the conclusion may be; and the youthful heir of all the ages may owe his venerable appearance, not, as he fondly imagines, to the disintegrating effects of brain-work, or the pressure and friction of centuries of accumulated wisdom under which, Atlas-like, he groans—but, oh bathos! to the ravages of a minute and contemptible vegetable!

Passing downwards from the head, we find another variety of trichophyton or hair-plant which luxuriates on the beard. It is associated with the disease called chin-welk, or mentagra (*Sycosis contagiosa*). Its appearance is indicated by redness, tension, and irritation of the skin of the chin, lower jaw, and upper lip, followed by an eruption of tubercles of various sizes, resembling strawberries, each of which is traversed by a single hair, which has lost its colour, become brittle, and can be pulled out with the utmost ease. Segments of circles of these pustules interspersed with the parasitic growth often extend round the front of the neck, beneath the beard, from ear to ear, at the expense of permanent loss of the hair of those parts. As might have been expected from the nature of the plant concerned, it is more frequent in the seasons of spring and autumn. It is often very obstinate in its cure, being aggravated by injudicious applications, and lasting for years when suitable treatment is not adopted. From the rigorous measures enforced for its extir-

pation by the Levitical law, we find that it was very common amongst the Jews, by whom it must have been regarded as a grievous scourge, polluting their highly cherished beards, if not consigning them to the tomb of all the Capulets. There must have been an occult significance in the Eastern salutation, "May your shadow never be less, and the hairs of your head never decrease!" Pliny describes it as an epidemic raging among the inhabitants of Rome during the reign of Tiberius Claudius Cæsar. A Roman knight is said to have imported it from Asia, where it was very common, and to have transmitted it to his fellow-citizens. It was treated in a most barbarous manner with powerful caustics, and the diseased parts were even burnt down to the bone in order to eradicate it, the deformities thus occasioned being far more hideous than those produced by the disease itself. On the Continent it is more frequent than it is in this country, owing to the contagion communicated and spread by the vile mode of salutation in use among friends and acquaintances, and the universal practice of shaving in the barber's shop.

There is a singular form of cutaneous disease which seems to have a special predilection for those parts of the body which are habitually covered with clothing; being most frequently found on the skin of the neck and breast. This is the pityriasis or dandruff, caused by the presence of a vegetable growth, discovered by Eichstädt in 1846, and called *Microsporon furfur*. It consists of an efflorescence of small circular spots which gradually coalesce and produce irregular patches extending nearly over the skin of the whole trunk, and accompanied by abundant desquamation of dry branny scales, constantly renewed. The depth of tint in these scales varies considerably, being sometimes so light as scarcely to differ from that of the healthy skin, and sometimes, as in one variety occurring on people of very dark complexion, almost black. The colour usually resembles that of diluted bile; hence the name of *éphélide hépatique*

formerly applied to it, from its supposed connexion with some disorder of the liver. On subjecting a portion of the branny desquamated matter to the microscope, numerous epithelial scales may be observed mingled with the oval seeds and filaments of the parasite; some of these filaments being isolated, and others united to one another at the ends, forming branched chains or ramified tubes with knots at intervals, like miniature bamboo canes, covered at the extremities with fructification. This affection is very common, occurring at all ages and in both sexes, though women generally are more subject to it than men.

A large number of skin diseases peculiar to foreign countries, which were formerly supposed to be caused entirely by hereditary predisposition, constitutional debility, or impurity of the blood, have been recently ascertained to be associated more or less distinctly and directly with parasitic plants. The yaws, so prevalent in the West Indies, and in some parts of Africa and tropical America; the elephantiasis, which so horribly disfigures the Egyptians; the ichthyosis or fish-skin of the East; the pellagra of the plains of Lombardy and Northern Italy—are all either primarily produced or invariably accompanied by some form or other of the vegetation under review. A very remarkable form of fungoid disease has very lately been described in the *Bombay Medical and Physical Transactions*, and has also formed the subject of a pamphlet with illustrations published in this country by the same author. Though new to us, it has been well known for the last twenty years in India, in many parts of which it prevails endemically. It is very common among the ryots or farmers, and is caused by the development of the seeds of a species of mould, introduced through abrasion beneath the skin of the foot. Its effects are exceedingly curious, and utterly disproportionate, we should imagine, to the cause; disorganising in many cases the structure of the whole member, and occasioning much suffering. In hospitals—more especially

those of France and other parts of the Continent—cases not unfrequently occur in which collections of white flocculent filaments, forming a cottony tissue, are found on removing bandages from sore surfaces. In summer these develop with the most astonishing rapidity, a few hours being sufficient for their appearance, and are exceedingly annoying, not only on account of the trouble involved in removing them, but chiefly because they either aggravate the sore or retard its healing. These vegetable filaments are called mycodermis, and are similar to the spawn of the mushroom, both being analogous to the creeping interlacing roots of flowering plants.

But not only does this peculiar vegetation infest the external surfaces of the human body; it is also found, in forms as strange and varied, in several parts of man's internal economy. Of course, as might have been expected, fragments of fungi, confervæ, and lichens, often adhere as foreign matter to his food, and thus find their way to his stomach and other organs; but these cannot be regarded as parasites, inasmuch as they do not attach themselves to any surface, do not propagate themselves, and are perfectly harmless and easily expelled. But besides these, true entophytes are found growing on the internal structures, and propagating themselves with almost the same rapidity as in the open air. A curious specimen of this class is sometimes seen in the sordes of the teeth of persons ignorant of Rowland's odonto and all other dentifrices, and more frequently in those who are affected with low typhoid fever. This organism has little or no structure, consisting of simple tubes or filaments, like those of the common confervæ. It is somewhat interesting as being the first vegetable parasite found on man—discovered in 1677 by good old Leuwenhoek, the Dutch botanist, who very ingeniously remedied the defects of the microscope of his day by furnishing every object intended for examination with its own proper lens, attached by a wire at the right focal distance.

The lining membrane of the mouth

and throat is the seat of an eruption of small superficial vesicles single or confluent, forming a thick whitish crust, which adheres tenaciously for a time, but ultimately falls off. This affection, called aphtha or thrush, is caused by the growth and development of a parasitic plant. It is very frequent during the period of early infancy, and also in advanced stages of pulmonary consumption, and in diseases attended with slow and gradual exhaustion of the vital powers. In the sputa of patients labouring under phthisis, the organism may often be seen by the microscope, springing in full luxuriance from the epithelial or mucous cells.

Free or unattached entophytes are comparatively rare, because they possess no means of counteracting the expulsive efforts of the organs in which they occur. The only plant of that class which is found in man is that described by Professor Goodsir under the name of *Sarcina*, from the resemblance of its little square cells, divided into four equal parts by two cross lines, to a collection of miniature woolpacks. It occurs in the frothy ejections occasionally met with in severe cases of stomach disease. This locality might appear at first sight exceedingly unfavourable for the development and nutrition of a vegetable organism; but its very minute size, and its extraordinary powers of rapid reproduction, enable it to escape removal by the ordinary expulsive efforts of the stomach, the secreting power of which is greatly impaired before the plant appears. From the quaternate arrangement of its parts, it was supposed to belong to that minute but exceedingly prolific division of the algae, called Desmidiæ, whose singular mathematical shapes afford an endless source of wonder and delight to the microscopical observer. More extended and careful investigations have, however, proved it to be merely an algal condition of the common mould, produced and retained in that state by the special food which it meets with in the stomach, and which it finds in no other locality, but reverting to its original form when the supply of

this peculiar pabulum is exhausted. And, as if to establish this conclusion beyond the possibility of doubt, it has since been found in precisely the same form as in the stomach in a case of parasitic skin disease.

The class of plants concerned in these disagreeable affections of the human body has always furnished the strongest support of the doctrine of equivocal or spontaneous generation; a doctrine which has found able and distinguished advocates from the time when barnacles were supposed to originate from the foam of the ocean, and ducks and geese to grow from barnacles. The various changes which they undergo, resembling the alternation of generations, so evident in the lowest classes of the animal kingdom, as noticed by Steensurup and others; the absence in many of these transition states of any apparent mode of reproduction; the peculiar situations in which they are found, always constant under similar circumstances; the suddenness with which they appear, and the rapidity with which they spread themselves—have all been adduced as arguments in support of the opinion that they are the vital elements into which bodies are resolved by decomposition, or the rudiments of vegetable existence produced by a self-creative power in nature. This belief, however, has been so weakened by an accumulation of incontrovertible facts, that it bids fair soon to be little more than an echo of the past. Amid all the mystery connected with the modes in which these plants are diffused, this one fact stands out clear and prominent,—proved beyond dispute by the great majority of modern observations,—that they are produced originally from germs or seeds derived from parents, and having a cyclical development. Difficult as it is to determine the course of their development, owing to the various stages of their existence being often passed under totally different circumstances—resulting in modifications of form so great, that two successive conditions cannot always be satisfactorily recognised as the same—still, when they have been traced to their

highest condition of growth, they have always been found to possess well characterised organs of reproduction. The vegetable germs or filaments which occur in human parasitic affections, however diverse their forms, have almost invariably been found, when placed in circumstances favourable to their full growth, to produce the cottony spawn or mycelium, and the dusty stalks of the common blue or green mould of our cupboards. On the living animal body, the circumstances being unfavourable, the germ-cells continue in the primordial stages, remaining either globular, or changing into the oval or even the filamentous form, but seldom or never reaching a higher condition. And, at this stage, the appearances which they present vary very much with the substances on which they are produced. For instance, in saccharine fluids undergoing the alcoholic fermentation—water being an unfavourable element to fungi as a class—these germs produce common yeast, which is nothing more than a mass of mould-cells or vesicles which nourish themselves at the expense of the organic principles contained in the fluid, thereby liberating the alcohol; the identity of yeast with human vegetation being proved by the fact that its granules may be made to induce the ordinary parasitic skin diseases—a few germs rubbed into the head or breast producing respectively tinea or dandruff. In an acetous solution, the same germs develop into the vegetative system or spawn, which, by way of compensation for its want of fructifying power, spreads to such an extraordinary extent as to form the thick gelatinous or leathery crust of the well-known vinegar plant. We see from these examples that, though the seeds of the mould-fungus will not refuse to germinate in situations contrary to the usual habits of the tribe to which it belongs—even in poisonous solutions—they will not in such situations develop into perfect plants, but remain, for almost any length of time, in various stages of embryonic or filamentous growth. To enable them to maintain this perpetual youth, and, at the same

time, to spread themselves, they are furnished, in the absence of proper reproductive organs, with an almost indefinite power of merismatic division; that is, separating into laminae, or layers—into joints, or buds—each growing into a distinct individual, and capable, in the same manner, of propagating the plant. A very extraordinary variety of this mode of propagation has been recently discovered by my friend, Dr. Lowe, who has experimented and written very ably upon this subject. He found in mother's catsup a number of yellowish globular bodies about the size of a pin's head, each containing an innumerable quantity of non-nucleated cellulæ, capable of assuming an oval form and acquiring a distinctly tubular or mycelial aspect, and ultimately growing into perfect mould. These cellulæ are often found on dry substances; and from their exceedingly minute size, (being much smaller than the ordinary seeds of fungi, smaller even than the blood-cells, incapable of detection except in masses) find easy access into the most out-of-the-way places—through the slightest lesions of the capillaries or veins of the mucous surface into the circulating system, where the presence of plants would be otherwise unaccountable. The white powder found on old beer barrels, and on wooden utensils where organic matter has been deposited, consists entirely of these curious entities, which were formerly supposed, without foundation, to be animalcules of the vibrio class. Gifted as they are with such anomalous powers of reproduction, and capable of multiplying themselves indefinitely in almost any form they assume, let us take also into account the enormous number of seeds, produced by the normal mode of reproduction whenever it is developed, constantly diffused into the atmosphere—floating about on every breeze that blows; dancing invisibly up and down in the air-currents of our rooms; capable of entering through the finest conceivable apertures; ever at hand, waiting only the combination of a few simple conditions to start into

active growth—and it is surely very unreasonable even to suppose the necessity of spontaneous generation for organisms so miraculously endowed for universal diffusion. There is no difficulty in accounting for their origin; the real difficulty is to conceive how any place can be free from their presence.

After these statements, it need hardly be asserted that parasitic affections of vegetable origin are highly contagious; their seeds or buds coming into contact with the skin by transmission through the air, or by the use of brushes, combs, razors, or articles of dress, of persons affected with them. The relation of fungi to the diseases in which they occur is a disputed question. It is not known positively whether they are the cause or the effect; whether their presence is a mere accidental occurrence—a secondary formation produced by some incipient alteration in the tissues—or whether they are active morbid agents producing disease on healthy surfaces. It is true that fungi, as a class, require a dead or decomposing matrix on which to vegetate; but any argument we may build upon this circumstance is opposed by the exceptional fact, that parasitic disease can be induced by inoculation, by the simple introduction of the vegetable beneath the skin; and, although it might appear probable, theoretically, that the spores of the fungus germinate more readily in persons previously diseased, or in a debilitated state of body resulting from want of proper food, pure air, and exercise, it is not confirmed clinically, for the majority

of those affected are in vigorous health. That malarial and epidemic fevers may be of cryptogamous origin, and connected with the diffusion of these plants in the atmosphere, has more than once been asserted; and, though the opinion has been decried by several writers, a slowly accumulating mass of evidence seems to preponderate in its favour. The immense profusion of these plants; their power of penetrating almost everywhere, and developing themselves in almost any circumstances; their well-known deleterious effects in parasitic diseases; the fact that their agency is purely zymotic, and that bodies very closely resembling them, if not identical with them, have been found in the blood and kidneys of patients affected with typhus; all these render it very probable that the relation between these plants and epidemic diseases is, to say the least, closer than is commonly supposed. The pestilence still walks in darkness; but the little that is doing from time to time to lift the veil from the mystery is calculated to impress us more and more with a wholesome dread of this vast army of minute plants—which, as important auxiliaries in the operations of Providence, are conferring incalculable benefits, by making our world purer and more healthful than it would otherwise be; but which, when carried beyond the line of safety and usefulness by the very impetus acquired in obeying the anti-Malthusian law of vegetation, are attended with the most disastrous consequences to all organic nature, not excepting man himself.

VINCENZO ; OR, SUNKEN ROCKS.

BY JOHN RUFFINI, AUTHOR OF "LORENZO BENONI," "DOCTOR ANTONIO," ETC.

CHAPTER XII.

A NEW START.

WHETHER hours or minutes had elapsed he knew not, when he was awakened by the grating of a key in the lock of his door. He sat up in his bed, and by the light from the window (the night was clear and starry) he saw the door open gently, and a noiseless form steal towards his bed.

"I am awake," whispered Vincenzo ; "who are you ?"

"All right ; I am Ambrogio," answered the mayor's son in the same cautious tone. "I dare say you expected me ; didn't you ?"

"Truth to say, I had lost all hope of anybody coming ; I sat up till past eleven."

"Father has been uncommonly long in going sound asleep," explained Ambrogio, "and I dared not venture into his room to get the key of your door until I heard him snore. He is safe now till five in the morning ; I know his way. Well, I have come to ask of you if you have still a mind to go and have a crack at those Tedeschi."

"I should think so," said Vincenzo, "if I only knew how to manage it ; but where to enlist, that's one difficulty, and the second, that I haven't a penny."

"I have money enough for two," said Ambrogio, "and I know the country well. We'll make straight for the camp."

"But your father—think how angry he will be," objected Vincenzo.

"Of course he will," returned the other ; "but he will forget and forgive for all that. My father, between ourselves, is all for the Statuto and the war, though before me he pretends to turn up his nose at one and the other. The fact is, he prefers me to either, and, as he well knows how I long to volunteer,

he does all he can, poor man, to throw cold water upon my zeal. Well, shall we be off ?"

"Ah ! he will lay all the blame of your going on my shoulders," again objected Vincenzo, "and so will my godfather, the Signor Avvocato ; they'll both of them accuse me of enticing you away."

"But how could you, shut up in the loft, and with no way of seeing me, be accused of enticing me away ? No one in his right senses could do so ; on the contrary, my having got hold of the key will prove, as plain as two and two make four, that I was the one to entice you ; don't you see that ? And then, haven't I a tongue in my head to clear you, if necessary ?"

"As to that, I have no doubt but you would," said Vincenzo, whose scruples melted away rather from the effect of the winning warmth of his new friend's manner, than from the stringency of his arguments. "You are a brave fellow, and I will go to the end of the world with you. I shall be up and dressed in a minute."

"Stop," said Ambrogio ; "would it not be safer for both of us that you should leave your seminarist's dress behind ? It would be a sure mark, if we are pursued, by which to track and identify us ; and, if I know anything of my father, pursued we shall be." Vincenzo asked nothing better than to part with what he considered as the outward badge of his thralldom, and which was, moreover, in a very deplorable condition. The two youths accordingly proceeded with all possible caution ; Vincenzo carrying his shoes (Ambrogio had come up barefooted) down to the latter's bedroom, where Vincenzo, with great relish, dressed himself in a suit of fustian, rather the worse for the wear, which big Ambrogio had outgrown, and which

suited the slim figure of the seminarist tolerably well. The three-cornered hat was replaced by a round straw one ; and, despite the old adage which declares that the frock does not make the monk, Vincenzo felt quite another being in his novel attire. Ambrogio put a change or two of linen, and some provisions, in a knapsack, and then they stole quietly out of the house.

The night was beautifully clear, the air fresh and pleasant, and the road less dusty than Vincenzo had anticipated from his late experience. So they went on at a brisk pace, exchanging confidences, and laying out plans for the future. Ambrogio, being the elder, the bigger, the more adventurous, and the better acquainted with things in general, of the two, naturally and without opposition took the lead of the expedition. Indeed, his knowledge of the road to the camp, of its position, of the different corps of Piedmontese assembled there, and of contemporaneous politics, was quite amazing in one who had scarcely received any education, and had always been engaged in the usual labours of a peasant.

He explained to Vincenzo that all the information he possessed, about the interesting topics of the day, he had gathered from the Official Gazette of Turin, which his father, as mayor, received *ex officio*, and which Ambrogio never failed to read and study by stealth. He had a positive passion for reading ; and a student living in the neighbourhood during the vacations had lent him the novels of D'Azeglio, Manzoni, Guerrazzi, and other authors of the liberal party, all of which Ambrogio had devoured with intense pleasure. His political tenets had been instilled into him in his early childhood by the schoolmaster of his village, now dead, an ex-soldier, ex-monk, and a thorough republican, who had served under Murat in the short and unfortunate campaign of 1815, and whose passion to the last was political speculation.

Vincenzo learned also from his comrade, that his four days' wandering with the *soi-disant* colonel had not brought him

farther from Ibella than one good day's journey. "If you trust to me," summed up Ambrogio, "that is, march when I say march, and stop when I say stop, I reckon upon our reaching Novara by dusk this evening, and fresh enough to get on a stage towards Lombardy. From Novara, you know, to the Ticino is but, as one may say, a leap—and beyond the Ticino is Lombardy itself."

"Very well ; but," insinuated Vincenzo, who liked to conduct matters methodically, "since we have to pass through Novara, had we not better, while we are there, go to the proper authorities, and be regularly enlisted ?"

"Catch me at that !" cried Ambrogio. "Novara is unsafe ground for us to linger on, my dear fellow ; that's just the place where father will look for me first. And what's the use of enlisting ? why, only to be sent to some *dépôt* to drill, and drill, and drill, till, perhaps, all the fun is over."

"But," observed Vincenzo, "without being drilled we cannot make good soldiers."

"There is no drill so good as actual fighting," said the mayor's son sententiously. "I know that the companies commanded by Major Griffini and Captain Longoni, now actually at the camp, are made up of youths, most of them students who have had no drill at all, and they do very well ; so why shouldn't we ? We'll volunteer into one or other company, eh ; what do you say, Vincenzo ?"

Vincenzo had little faith in volunteers, because he had heard the Signor Avvocato repeatedly express a poor opinion of their discipline and usefulness—all men past fifty are incredulous about volunteers—and he would have preferred, therefore, to enlist into a regular regiment ; at the same time he was not insensible to the advantage of entering the lists without going through a tedious, and perhaps long apprenticeship, during which the war might come to an end ; and then farewell all hope of distinction. Vincenzo was at that happy age, when the justice of a cause seems the best guarantee for its success ;

and, the Italian cause being justice itself, in his eyes, he felt not the least doubt of its ultimate, nay, speedy triumph. He accordingly started no new objection, contenting himself with observing that, so as he had his heart's desire of meeting the Austrians in a fair stand-up fight, he cared little whether he did so as a volunteer or a soldier of the line.

The morning was passing beautiful. The sun had risen in all its glory; the country far and near seemed to quiver with pleasure under the salutation of its early rays; from farm to farm cock answered cock; phlegmatic cows, lifting up their heads, lowed forth their satisfaction; calves capered cheerily over the dewy pastures; larks sang themselves drunk in the newly born light—it was ecstasy to walk amid this revival of nature. But, as the sun rose higher and higher above the horizon, so did our pedestrians' elasticity of spirits and steps lower in proportion. About seven o'clock the inconvenience of heat and dust began to make itself felt rather severely—another hour, and they had entered the outskirts of that zone of territory, where the cultivation of rice begins. A wide-spread carpet of the tenderest green, intersected by canals, bordered by pollards and poplars, and here and there agreeably relieved by substantial farmhouses, and rich oases of mulberry and other fruit trees—such was the general aspect of the country. The smiling rice-grounds bear nothing on the face of them to warn the passers of the foul emanations which rise from their water-steeped foundations weltering in the broiling sun—quite the contrary; they look as placid and innocent as the finest expanse of delicate English turf. But the pale fever-stricken creatures, whose lot it is to labour in these nurseries of disease, know better. Vincenzo was born in a region like this; had lived in it till the age of nine years; and he now gazed upon the familiar prospect with the twofold melancholy which attaches itself to the scenes of one's childhood and of one's first great sorrow of life. It was in a rice plantation near Vercelli

that his mother had died, and that his father had been infected with the germs of the malady which had also carried him to an untimely grave.

Ambrogio too had recollections of his own, and very disagreeable ones, connected with rice-grounds—that is, recollections of ague, which had kept him low for ever so long; and, as he thought of it, he fell to inveighing against himself for having forgotten to put a bottle of wine in his knapsack. "What an ass I was not to have thought of it! A couple of glasses of Monferrato would have carried us on triumphantly to Cascina Grande, there to have our siesta; whereas we shall have to stop at the first house on our way—for rest we must, and, heated as we are, we cannot lie down in the open air without, I may say for me at least, the certainty of catching the fever. I have had it twice already, and I have no wish to recommence. The heat is so extraordinary also for the end of May."

"I wonder if it is as bad on the banks of the Mincio?" gasped Vincenzo.

"No doubt of it, if not far worse," answered Ambrogio; "and, when Peschiera is taken, then comes Mantua, and the swamps there are famous for their unwholesomeness."

"Poor soldiers, how they must suffer, and what lots of them will die," said Vincenzo, feelingly.

"No doubt of that either," returned the other; but, at the sound of wheels in their rear, all Ambrogio's sympathy for the sufferings of the army vanished. He exclaimed, "Halio! a gig behind us in the road, comrade; we must ignominiously squat down behind this friendly bank; this is the most critical moment of our journey. If my dad gives chase, as I warrant he will, depend on it that he is at our heels now."

Squatting down in the fields below the road, or skulking behind trees at every new alarm, their weary march at last brought them to a haven of refuge—a wretched tumble-down cottage. As they entered it without much ceremony, an old forlorn-looking woman, with a babe in her arms, and two little

urchins at her heels, attracted by the sound of steps, came from a back-room and inquired their business. Their business, said Ambrogio, was to purchase a bottle of wine, and beg the permission to rest their weary limbs. Rest, said the woman, they were welcome to, and a cup of coffee, and a dish of *polenta*, if they could wait till it was cooked ; but wine she had none—that was an article of luxury she had not seen for many a long day. Her husband had been laid up with the fever, and unable to work for the last four months, and they were as poor as could be.

While saying this, and to the great amazement of the two youths, who had taken it for granted that she was the grandmother of the children, she put the baby to her breast—the only available means of effectually hushing the screams in which it had never ceased to indulge since the entrance of the strangers. Each of the exhausted wayfarers accepted gratefully and swallowed the cup of coffee proffered to them. Coffee is rather an article of necessity than of luxury in these pestilential districts, and is always to be found, even in the most miserable hovel. Half an hour later, provisions were *hinc inde* put in common, and a substantial meal improvised, consisting of the woman's *polenta*, and Ambrogio's bread and sausage.

"Do you know if the war is likely to come to an end soon?" asked the woman between one mouthful and another.

"I am afraid not," replied Ambrogio. "Peschiera is as good as taken ; but then, there's Mantua, and after Mantua, Verona—two teeth hard to draw."

"People about here say that the men on the reserve are to be called into active service ; pray, do you happen to know if it is true?" inquired the woman.

"Not true as yet," said Ambrogio, "but very likely to be so in a short time."

"Then, I say, it is a downright abomination," cried the woman, in a sudden burst of passion.

"Surely you are aware," put in Vincenzo, conciliatingly, "that it is according to the law of the service."

"Those who make such laws ought to be ashamed of themselves," said the woman vehemently.

"But, my dear madam," urged the ex-seminarist, "the laws may seem hard—actually be hard, without ceasing to be just."

"Just ! not a bit of justice in them," screamed the exasperated woman. "Is it just to wrench a father from his family, and leave wife and children all to starve?"

"A very pitiful case, and very hard to bear," persisted Vincenzo ; "still, if the country requires the father's arm to defend it—"

"The country !" interrupted she, in anything but a respectful tone ; "and what does the country do for me, that I should give it the life of my husband, the father of my children ? The country indeed ! An hospital to die in, suppose there's a corner vacant in it—that's what the country gives to me, and such as me."

Vincenzo was going to reply ; but Ambrogio nudged him to hold his tongue, and said himself to the woman, "My good friend, what's the use of exciting yourself now ? Very likely your husband may never be called on to quit you ; very likely there may not be any occasion to call out the men on the reserve ; but, if the worst comes to the worst, and your husband and other husbands should be required for active service, depend on it, the King and the Government, and the public, will not leave the bereaved wives destitute, but provide for them and their children in the absence of their natural support."

The woman was a little soothed by this assurance—one which the event fully justified. But no liberal allowance to their families ever succeeded in reconciling to active service a whole class of soldiers, who had hitherto considered themselves, and had practically been, lawfully exempted from it, and whose heart besides was in their homes. Thus, the then actual Government was paying

the penalty of the want of foresight of the Government which had preceded it, and which, in no prevision of war, had given permission to as many of the men on the reserve as had asked for it to marry.

Eight hours of weary walking, without a wink of sleep, had so exhausted the two lads, that they began to doze on their seats ; seeing which the hostess led them to the sleeping-room of the family, the only one which contained a bed, and there she bade them lie down, and rest as long as they pleased. Begging her not to let them sleep over a couple of hours, they threw themselves, dressed as they were, on the bed, and in two seconds were fast asleep.

We beg the judicious reader, who may have felt scandalized by the unpatriotic language of this poor drudge in the plains of Novara, or otherwise shocked by the want of public spirit in the few characters hitherto sketched—we beg the reader, we say, to bear in mind that we are dealing with a country the seat for ages past of a far from always enlightened despotism, and where all that goes to make the education of a people, representative institutions, public instruction, free speech, free press, and so on, had had but a two months' growth at the time to which we refer. That sublime abstraction, "the country"—an abstraction, the comprehension of which, by the bye, presupposes a certain training, and consequent enlargement of the mind—was little likely to be understood and felt, little likely to carry weight with it against tangible and dear realities, in hard-toiling districts, within reach of no other authoritative voice than that of a parish-priest, oftener than not the humble servitor of the powers that were.

Where, then, was the strength of liberal Piedmont ? In the prestige and example of royalty, in the devotion of the army, in the public spirit of the populations of the large cities, in the enthusiasm of the youths of the university, in the common sense and love of order of all classes.

CHAPTER XIII.

AN EVENTFUL DAY.

It was nearly five o'clock in the afternoon when Ambrogio woke of his own accord and roused his still sleeping comrade. The woman pleaded in defence of not having kept to their instructions, and her promise, that they had looked so weary, and slept so soundly, that she had not had the heart to waken them. Nor did Ambrogio find courage to quarrel with the well-meaning soul, though the delay incident on her transgression interfered sadly with the plan he had traced out.

Ambrogio's intention was, as we know, so to manage both their time and their legs as to arrive at Novara about dusk, pass through the town, and push on straight to Madelli on the Ticino, and there to rest. Whereas, the three hours they had lost at the cottage left them no chance of reaching Novara before eleven at night, and that too after a tramp sufficiently long to put the further stage to Madelli quite out of the question. Nothing need hinder them, to be sure, from passing through the town at eleven at night as at dusk, and trusting to find shelter for the night at the first cottage they might come to. But to secure admittance at so unusual an hour was more than problematical ; and, in case of denial, there would be no resource left but to discover the driest ditch for a bed, and the softest stone for a pillow—a resource anything but palatable to one so fearful of the marshy grounds as Ambrogio had every reason to be.

He, however, kept all these perplexing reflections to himself, and took leave of his hostess, as Vincenzo did, with those hearty thanks and good wishes that Italians never grudge to anybody. The heat was less oppressive than it had been during the last hours of their morning's walk ; at least they felt it less, because of the refreshment and long rest they had enjoyed ; but the dust was as bad as ever, nay much worse, when after a few miles they struck into the high road between Turin

and Novara. An additional drawback also was the increased number of vehicles, and the consequent necessity for the runaways to stop and skulk more frequently, in order that those conveyances, going in the same direction as themselves, might pass. This being the direct line of communication between the capital and the camp, the great concourse there of carriages of all descriptions, of strings of horses and mules, of riders and pedestrians, was easily accounted for.

The majority of those on foot were soldiers ; and Vincenzo remarked with pleasure, that scarcely a civilian passed a uniform, whether single or in groups, without giving a hearty cheer. Many of the inhabitants of the houses scattered along the road, waited, wine-bottle in hand, on their thresholds, for the soldiers ; went up to them, and bid them stop and refresh themselves. The great majority of the military looked in high spirits, and sang in chorus as they marched along—it was only the few who jogged on heavily, or rested with a weary and dejected air by the roadside. The advent of a Government courier, whirling past in a chaise, or at full speed on horseback, never failed to excite universal enthusiasm ; hurrahs, shouts, waving of caps, hats, shakoes, greeted the messenger, every one taking it for granted that he could be the bearer of none but good tidings.

Amid the diversion offered by the animation of the road, it was a comparatively light task for our young friends to walk steadily and briskly on ; they enjoyed the change from loneliness to bustle and cordial salutations. They had prudence enough, however, not to yield to the friendly advances of any fellow-travellers, lest, at some moment, when the sound of wheels in their rear necessitated hiding, their movements should either be hampered or engender suspicion. Nevertheless, what with excitement, and growing familiarity with danger, much of their former vigilance wore off ; and a deaf ear was more than once turned to ominous sounds, fortunately without any untoward result.

A second allowance of bread—they had had a first one on starting from the cottage in the rice-grounds—seeming now fairly earned by a three hours' trudge, they shared between them the last half of the last loaf ; but, in spite of hunger, the process of swallowing was not easily accomplished, from the quantity of dust that had to be swallowed with the bread. The propitious sight of a dry pine-branch above the door of a house they were passing, suggested the advisability of moistening the bread and their throats ; accordingly, they entered the wine-shop, and ordered a couple of glasses of Nebbiolo. A long row of deal tables, with benches to correspond, stretched from end to end of the lurid hole ; no table was occupied, save one—at which sat two young gentlemen, wearing on their heads sugar-loaf hats, with tricolour cockades, and on their chins all the stock of beard, scanty though it was, with which Mother Nature had gifted them. A thick layer of dust on their clothes and boots witnessed to the fact of their having journeyed far, and on foot.

The customary salutations were exchanged between them and the new comers. "No lack of dust, eh !" said the shorter of the couple with cockades to the couple *sans* cockades. "We look like so many statues of the Commendatore in *Don Giovanni*. If the question is not indiscreet, are you going much farther ?"

"As far as—Novara," replied cautious Ambrogio ; "and now, may I put a similar question to you ?"

"Oh ! we are students from Turin going to join our comrades at the camp," answered the one who had already spoken.

"That is to say," here interposed the taller, who had hitherto kept silence, "we are going to place an enthusiasm and a spirit, which, well directed, would take us straight to Vienna, at the service of old martinets, procrastinators and blunderers, who will soon use it up to no purpose in marches, counter-marches, and the like—that is what we are going to do."

"Nonsense," remarked his companion ; "remember the proverb that the better is the enemy of the good. Of what avail lamenting that which we have not ? Let us instead make the best of what we have. Napoleons cannot be improvised for the occasion."

"Who asks for Napoleons ?" rejoined the other, warmly ; "there is no need of them. Only give me new men and a new system—that is what I want. For new things, new men ; for revolutionary ends, revolutionary means. Take any lieutenant full of pluck and faith in Italy's future—place him at the head of the army—sound the tocsin—rouse, arm the land—set the popular passions in a blaze, and then—at the foe—that's the way to conquer ! Instead of which, what are you doing ? You entrust the army to leaders without zeal and capacity, who waste precious time and blood before strongholds best let alone ; you distrust and discountenance our volunteers ; you throw cold water on the enthusiasm of the masses ; you dwindle a national war down to the pitiful proportions of a dynastic one. I say that is the road to certain ruin. I appeal to these gentlemen if it be not so," wound up the orator, with an interrogative gesture to the two young strangers.

Ambrogio answered, not without embarrassment, "I am but a poor ignorant peasant, whose opinion can carry no weight ; but I would remind you that, up to this date, the army has done very well, and that looks as if it were tolerably well commanded ; and, as to pluck, why, who has shown more of that than his Majesty the Commander-in-Chief ? Nor do I agree with you as to the national enthusiasm, which you accuse the Government of stifling, and of which you would make your lever. Well, in the cities, the popular spirit may be great and unanimous—I don't say no ; but in the country districts, such as the one where I live, for instance, you would discover but a precious small amount of enthusiasm for the war."

"Exactly," insisted the tall student, "because the Government does nothing to arouse it. Only scatter a number of

chosen men throughout the country, establish a pulpit of patriotism in every hamlet, and then see how easily you will bring the agriculturists up to the boiling point."

"May be so," said Ambrogio, with a doubtful shake of the head, and rising to go ; "Rome, you know, was not built in a day. But it is getting late, and we must be off ; pleasant journey, gentlemen, and good luck ; perhaps we may meet again before the campaign is over. Farewell till then."

The sun had set, and Vincenzo and Ambrogio walked silently for some time in the soft twilight ; the hour was propitious for meditation, and apparently neither of them lacked matter for reflection. "Ambrogio," said Vincenzo at last, "do you think that that gentleman's denunciation of the way the war has been carried on has in it any reasonable foundation ?"

"About as much," replied Ambrogio, "as my criticism of a Greek play, or yours on some point of navigation, might possess. His knowledge of war, I fancy, may rank with mine of Greek, or yours of seafaring matters. How, then, can he be a judge ? Common sense points out that those who have made certain subjects the study of their lives must know more about them than those who have not, and common sense also tells us that the man who knows must be the one to be trusted."

"Common sense says so," echoed Vincenzo ; "yet we have instances of the contrary. It is bewildering and disheartening to perceive such discrepancies of opinion among those who belong to the same party, and who ought to be of one mind. If we, of the liberal party, cannot agree among ourselves, how can we hope to succeed ?"

"True," said Ambrogio ; "still we must not exaggerate to ourselves the practical bearing of these differences of opinion. Often they do not affect the actions of those who entertain them, as we see in the case of this student, who, in spite of his professed distrust of old martinets and blunderers, not the less goes himself to the camp, and stakes his

life for his country. I will tell you what will clear away all these different shades of way of thinking, and make all men of one mind—a signal victory.”

“God grant it, then, and soon,” cried Vincenzo.

“Amen !” pronounced Ambrogio.

Engrossed by such speculations as these, our travellers reached the outskirts of Novara. It was then a quarter past eleven. They had been taking notice for some time of a huge muffled sound, which every now and then broke upon the stillness of the night ; they wondered what it might be, and compared it to the rushing of a distant torrent, or rather, perhaps, to the uproar of a great throng ; but at this late hour Novara, a quiet town even in broad daylight, was not likely to be up and astir. As they drew nearer, they caught vibrations in the air rising distinctly above the confused rumble they had first heard, which no ear could mistake for aught but snatches of the human voice.

“A fire probably,” said Ambrogio.

“Or a *fête*,” suggested Vincenzo ; “I can see something like illuminations in the distance.” They hurried on, and presently came to a large house with lights in every window ; then they saw a second and a third, and so on, more or less illuminated. Meanwhile the hum of voices and the tread of feet became distinctly audible ; the tunes of the national songs that were being sung, even the very words of them, could be easily made out. Following in the track of these sounds, our two youths, quite out of breath, less from fatigue than from anxious anticipation of some great event, made their way into a large square, as light as if it were midday. This was evidently the focus of the rejoicing. Turning to the first person they met with, Vincenzo and Antonio eagerly asked what was the cause of this demonstration of joy. “Bless me ! where do you come from ?” said the man thus questioned, in the tone of one offended. “Why, Peschiera is taken ; a great victory at Goito. Italy for ever !”

The two friends would have gladly

echoed his words ; but impossible—they had no voice left ; they threw themselves instead into each other's arms, and sobbed like children. (*Italico more*, if you will, fair critic, and stern objector to the melting mood ; but why not allow that it is *more humano* !)

“We have it, hurrah !” shouted Ambrogio, at last.

“Henceforth we shall be all of one mind,” added Vincenzo, not less elated.

“It is so already—have you no eyes, no ears ? don't you see the proofs of one common feeling of confidence and thankfulness pervading this great throng ? Let us stop at that *caffè*, and have something to clear our throats ; strange that good news should choke one worse than road dust, and make one's legs as weak as water.” It was not easy among the tangle of men and chairs to discover two empty seats outside the *caffè* designed by Ambrogio for a halt. But, having at last succeeded, and procured something to eat and something to drink, our two volunteers in embryo recovered the full use of their tongues, and eagerly entered into conversation with their neighbours ; and, on its being ascertained that they were new arrivals, and, therefore, fit recipients for the particulars of the great news, they were soon put in possession of all the official and unofficial information by a dozen of obliging informants speaking all at once.

And, even strip them of all the unavoidable exaggeration, the tidings were glorious tidings. Peschiera had surrendered after scarcely a fortnight's siege ; 30,000 Austrians had been routed by 18,000 Piedmontese ; these were the events of one and the same day, the 30th May, the most auspicious day of the campaign of 1848. Well might the hearts of the citizens of Italy dilate, well might their gladness overflow in songs, *vivas*, and fraternal embraces. People ran to and fro, shouted to each other, fell on each other's necks, capered like mad ; at one spot a veteran soldier on his knees was thanking God that he had lived to see such a day, the bystanders cheering him lustily ; farther on a group of artisans sucked in every

syllable of the blessed despatch from the camp, read aloud and commented upon for their benefit by an officer of the national guard; acclamations of "Long live the army! long live the king!" hailed the appearance of the few stray uniforms scattered among the crowd, which opened before them. Bands of citizens of all classes—gentlemen, tradesmen, day labourers, soldiers, national guards—arm in arm, ten or twelve abreast, paraded round the square at military pace, singing national hymns in chorus. Nor was there wanting a good sprinkling of the fair sex, gentlewomen as well as women of the people, to enliven the scene, on which fell floods of light from the windows of the houses rising on the three sides of the square, all splendidly illuminated and studded with Italian flags, or with transparencies appropriate to the occasion. Ladies waved their handkerchiefs from balconies, or threw down bouquets, after which gentlemen in their zeal occasionally sent their hats. There is nothing like small places for the heartiness of such demonstrations—joy, like caloric, when diffused over a large area, cannot but lose a part of its intensity.

CHAPTER XIV.

DANGERS OF EXCITEMENT.

As repose, with solid and liquid restoratives, gradually lessened the fatigue consequent on their long journey, our young patriots began to grow weary and ashamed of being merely passive spectators of the joyous proceedings going on before them, and felt themselves called upon to lay their meed of noise and movement upon the altar of their country. A childish whim, you will say, and quite inconsistent with the commonest dictates of prudence, and with their preconceived plan; for, if there was one good reason for shunning Novara in its slumbers, and its every night's scanty supply of flickering street lamps, there were two at least for not parading through Novara awake, astir, and in a blaze of light. But excitement

has thrown wiser men than either Vincenzo or Ambrogio off their guard.

Yielding to the enthusiasm of the moment, they left their seats and joined the moving throng; they hurried hither and thither in vague expectation of a vague something, occasionally attracted by some peculiarly striking transparency, but finding nothing to do in the patriotic line beyond buying large tricolour cockades, which they stuck in their hats, or exchanging an occasional shout or *viva* with some of the passers-by. At last they bethought them of falling into the rear of one of the joyous troops of citizens marching round the square, singing in chorus. No sooner had they done so than reinforcements came in from right and left, so that Ambrogio and Vincenzo suddenly found themselves promoted from the tail to the centre of a column on a par, as to numbers, with any of those that preceded. This looked like better sport, and they rather enjoyed it.

Presently the chorus they had been singing came to an end, and the singers to a standstill; calls for this or that song ran along the ranks. Vincenzo burst forth with Pio Nono's hymn. "No, no, none of that," cried several voices. Ambrogio, like the chivalrous friend he was, took up the air with all his might and main. Two or three of those nearest to him joined in, and then the opposition waxed fast and furious. A volley of groans, and "We won't have it," nearly smothered the hymn; in spite of which Ambrogio and Vincenzo, with one or two supporters, persisted. Upon this a young man—apparently, from his station in the front, one of the leaders—forced his way to the centre, and asked in a voice of authority who had begun the hymn to Pio Nono.

"I," said Ambrogio.

"I," said Vincenzo, almost in the same breath.

"Then have the goodness to cease it," said the young man, "or else leave our party."

"Can't one sing what one pleases in a free country?" asked Ambrogio.

"You are at liberty to sing whatever you please," returned the young man

civilly, "but not if you remain among us. We have purposely excluded the hymn you seem to patronize, and your continuing to do so while in our ranks can only create a disturbance. We are glad to have you in our party if your views and ours suit ; if not, we had better separate—"

A terrific tantarara from the big drum put an end to the controversy and to its object by breaking up the columns ; every man in them ran helter-skelter in the direction of the noise.

Vincenzo's mortification was extreme, less at his own discomfiture than at the disparagement it involved of a name dear to his heart. To Ambrogio, better informed through his assiduous perusal of the Official Gazette, this phase of public feeling with regard to the Pope was no novelty ; and he explained to his friend that Pio Nono's refusal to declare war to Austria, together with sundry other acts indicative of his growing lukewarmness in the cause of Italy, had considerably lessened the pontiff's popularity, and the vogue of the hymn named after him. This explanation was a heavy blow to Vincenzo ; it seemed that every inch he climbed up the tree of knowledge was to cost him one of his dearest illusions.

The stroke of the big drum, which had dispersed the singing columns, had also been the signal for the crowd to rush and converge towards a point at one of the extremities of the square. Ambrogio and Vincenzo did as they saw others do, and learned in answer to their questions that the band of the national guard was about to give the intendente a grand serenade. In fact, the music had begun before our youths had joined the compact throng blocking up all access to the town-hall. Presently, in a pause from the music, some one from among the crowd made a lengthy speech, at the close of which the multitude cheered tremendously, and the company in the balcony of the town-hall waved their handkerchiefs and hats, and made a profusion of bows. More music, more cheers, followed by a dead silence as a gentleman in black took up a position in

the centre of the balcony, bowed, and began to speak. Every word he said was received with applause ; and, when he ceased, and once more bowed, the cheers became positively terrific. From the place they occupied in the rear of the mass our two adventurers could not hear a word of the speech, or see much more than the tip-top of the head of the hero of the serenade ; but they were near enough to enjoy the band, to unite lustily in the hurraing, and to catch a share of the magnetic current of enthusiasm which pervaded the very air. The musicians began to put up their instruments, the gathering to break up and disperse—the *fête* was over. The lads turned round to make their way to some place of shelter for the rest of the night, when—

But, to account for what follows, we must return to Barnaby, whom we left, on the afternoon of the preceding Sunday, driving at a quick pace to Ibella. He arrived there at half-past five, and went straight to the intendenza, where he found the bureaux shut, and of course nobody except the porter, who informed him that the Signor Intendente was gone a little way into the country. The Signor Intendente did not come back till past eleven at night—too late naturally to see anybody on business ; and Barnaby, whether he liked it or not, had to champ the bit of impatience till the morrow. It was ten o'clock next day, Monday, before he succeeded in obtaining his credentials for the intendente of Novara, and was able to start on his search after the fugitive. There is a fine stretch of road from Ibella to Novara, and Blackie had neither the mettle of Bucephalus nor the wings of Pegasus, but only indifferent legs, and spirit which needed to be recruited by reasonably frequent allowance of rest and food. Blackie, to speak to the point, did not enter Novara much before midnight. Barnaby had sense enough to leave the intendenza alone at that hour, and go in quest of rest and refreshment for man and beast.

The intendente, applied to next morning, Tuesday, evinced a laudable readi-

ness to do honour to the recommendation of his colleague of Ibella, and, after taking down in writing an accurate description of the runaway seminarist, desired Barnaby to call again at four in the afternoon, to learn the result, if any, of the intendente's inquiries. Barnaby was punctual to the appointment, and then received the assurance that no colonel of the name of Roganti existed in the army, nor was there any dépôt or corps of volunteers at Novara. The man in authority further expressed his conviction that the young seminarist had been made the dupe of some charlatan, or even worse, who had played on the lad's credulity. A report, in fact, of a youth in a seminarist's dress having been seen on the previous Sunday on the road to —, in the company of a suspicious-looking character, had reached the intendenza that very morning. Acting upon this information, the intendente had already transmitted orders to the different stations of carabinieri, to track out and detain the two individuals. Similar orders had been given in the town itself, and all necessary measures taken for their apprehension, in the improbable case of their arriving at Novara at liberty. There was nothing, therefore, for Barnaby to do but to be patient and wait, calling from time to time at the intendenza for news.

Barnaby made use of his hours of forced leisure to pen and forward to the Signor Avvocato a series of hieroglyphics purporting to be a summary of the preceding information. Early on Wednesday he was again at the intendenza, in the hope of some fresh tidings—there were none. Barnaby's power of forbearance was now stretched to the utmost, and he was brewing *in petto* a famous *quousque tandem*, to be served hot to the Signor Intendente on the first opportunity, when, towards one o'clock of the same day, a hasty summons for him came from the intendenza. He hurried thither, and was introduced to a stranger, who had brought fresh and startling intelligence indeed. This person was no other than Ambrogio's father, who had, on discovering the flight of

the two birds, started at once for Novara, and, like the practical man that he was, applied forthwith at the intendenza for intelligence and aid.

From him Barnaby learned the arrest of Vincenzo's companion the horse-stealer, and Vincenzo's detention at his, the mayor's, house, and consequent escape in the disguise of a peasant, in company with the speaker's son. The mayor made so sure that the runaways would come to Novara that he earnestly solicited the adoption of still stronger precautions than had been already taken, to prevent all possibility of disappointment. Thereupon, a description of the two youths was sent to all the inns and lodging-houses of Novara, with strict injunctions to let the authorities instantly know of any such arrivals. Besides this, two police agents, in private clothes, were posted at the gate through which the lads were expected to enter, and others scattered through the town. One would suppose it an impossibility to escape from such a sharp look-out; nevertheless, all these wise precautions were within an ace of being frustrated by the great news of victory, which a few hours after burst upon the town like a bomb. Owing either to a slack surveillance at the gate, or to the large affluence of people streaming in from the environs, the two lads got into the town unobserved, and might possibly have preserved their *incog.* to the end, had they had prudence enough to remain at the *caffè*, mere spectators of the rejoicings, and at their termination have left Novara. Instead of which, as we know, they were ill-advised enough to exhibit themselves all over the square; which led, in the long run, to their being identified by a policeman, who was at the time thinking of anything but them.

The police, be it known, had orders to spare the lads the mortification of an arrest in public, save in the event of some absolute necessity. The policeman, therefore, contented himself with dogging their steps, until he stumbled on one of his comrades, to whom he whispered the discovery he had made, desiring him to carry the news to the

intendenza. The intendenza despatched the bearer of the news to a *caffè*, at which it had been preconcerted the mayor and Barnaby should take up their quarters for the whole evening. The mayor and Barnaby at once set out with the messenger. The policeman, by dint of certain peculiar shouts, succeeded in putting himself in communication with, and shortly after in joining, his fellow agent, who was keeping watch on Vincenzo and Ambrogio. The youths, with eyes and neck strained towards the balcony of the town-hall—the intendente was then speechifying—were as good as blind to all that was going on round them.

The mayor and Barnaby had all the leisure and facility they could desire, to choose their position close to the two unsuspecting lads, a little in the rear; and they had stood there a good twenty minutes before Ambrogio and Vincenzo

moved. They turned round at last, meaning to go back to the *caffè*, and found themselves face to face—Ambrogio with his father, Vincenzo with Barnaby.

"Pleasure enough for one day, I should think," said the mayor, drawing Ambrogio's arm within his own. "Now to bed, sir; to-morrow we'll have a reckoning."

"Glad to see thee out of thy black robe all the same," said Barnaby to Vincenzo, taking him by the arm; "but now let's follow the mayor's advice, and go to bed."

Without a word of remonstrance the two young friends, struck dumb by surprise, followed their unexpected guides to a neighbouring hotel; and, without a further word of explanation, the quatuor retired to rest—father and son in one double-bedded room, Barnaby and Vincenzo in another.

To be continued.

"IRON SHIPS."

I DREAMED: In purple seas, on fringed rocks,
Below the sunset, sate a Siren pale,
And sang sweet treachery. The mariners
Went hasting by with finger-hidden ears,
Or clinging to the thrilling mast for power.
They passed; and ocean-monsters by the rock
Rose up, and sported joyful to the song,
And mad with keen delight they lashed the sea,
And heaved their scaly sides. A sea-god rose
Most noble; with his shield of dripping gold
He waved them, and they sank. Then came down Night.

I dreamed: I saw them creeping by the shores,
Those low white sails, and thousand trickling oars;
And then the galleys rushed with brazen prows
To death-grips in that gulf; and throng'd the cries
Of all the lands below the rising sun;
Then failed to silence under Grecian shouts.
That might has melted from Ægean waves.

I dreamed: And lo, a pageant of the sea
Came floating wide at noon in Adria.
Light waves were leaping at the prows, and kissed,
And clave for them; then mirrored to the heart

The gold and purple of the singing ships;
 And odours hung in every silken sail
 Of her who wed the waters—richly wed.
 They brought the joy and fatness of the East,
 And poured it at her feet. Her mariners
 Were men of east and west and north and south,
 Strange-garbed and weaponed. Not as sons they loved.
 Ah, woful mother, where thy sons take rest,
 And strangers serve thee! She is widowed now;
 The ring is spent that wed the plenteous sea.

I dreamed: I watched the Ocean of the West;
 And, days and nights, there came no goodly ship,
 But sun, and stars, and pulsing winds, and calms,
 And shadows running purple on the sea—
 So lonely was that highway of the world!
 The moon came out, and laid a path of light;
 And down the glory of the moon dropp'd slow
 A hollow ship, with tall and ghostly masts,
 Whereon the moonlight ran, and furl'd sails;
 And on the clear-bathed decks about the masts,
 Were crews of spirits, wav'ring like a dream.
 She parted at the midst, and slow sank down,
 Without an eddy, through a moon-white lake;
 And, where she sank, a haughty ship of Spain
 Groaned over, labouring o'er the seas for gold.
 The caves are sealed; that sent the mermaids forth
 The phantom-ships are hailed to the moon;
 The sea hath lost the legends of her youth,
 With her lost loneliness; her ways are tracked;
 Her shores are white with kindred trooping sails.

I dreamed: 'Twas night on Egypt and the sea.
 Then sudden lightnings flashed the mouths of Nile,
 The sea, the giant decks, the pallid sky,
 To one full sight; and all the mouths of Nile
 Roared echoes to the ships; and my heart rang,
 For cheers rang oft that spake of my own land.

I dreamed: 'A ruling voice came from the sea:—
 "Now! let the forests fatten in their dews,
 And breezes sleep in all their drowsy tops,
 And sun-light sleep, and send no hewer forth;
 A breach is made in all the wooden walls!
 The child, and now the stripling, Earth is past;
 Be this her iron prime! Go, take man's arms;
 Go, wrestle in the dim and stubborn raine,
 And shape them in the roar and blast of flames,
 And brace your ships with thousand shields of proof,
 Stern Titans, till the war-bolts glide from them;
 And ye shall hold the empire of the Sea,
 In peace or reeling battle, to the end."

J. M.

THE ROYAL LIBRARY AT WINDSOR CASTLE.

BY P. F. S. H.

"Alii quidem equos amant, alii aves, alii feras; mihi verò à puerulo mirandum acqui-
rendi et possidendi libros inasedit desiderium."
—JULIANUS IMPERATOR.

To those lovers of books who care merely for the easy pleasures of light reading, or who are chiefly interested in curious and out-of-the-way works, as well as to the student of the more serious branches of learning and literature, the "Royal Library" at Windsor Castle offers not a few points of interest. The nature, objects, and merits of this establishment (though, as a matter of course, of a strictly private character) deserve all the more to be noticed, as it has, up to the present, been but very little known—one might almost feel inclined to say ignored—by most people, excepting those at and about the Court. For this reason, we do not hesitate to confess that it was with no ordinary pleasure that, at the suggestion of a friend, we made, some short time ago, what, in our own individual instance, may well be called a voyage of discovery to Windsor Castle, in order to treat ourselves to a short, but delightful feast upon some of the treasures and curiosities to be found in its library.

The origin of the present "Royal Library" at Windsor can be said to date only from the accession of King William IV.; for it was that monarch who, shortly after he had succeeded to the throne, ordered its formation. Since the "transfer"—as it is commonly called—of the "King's Library," in 1823, by George IV. to the British Museum, the absence of a library had made itself gradually felt at Court. If it were yet required to demonstrate the long and well-established truth, that it is much more difficult to acquire than to dispose of anything, the facts in question would furnish a very appropriate example. They show, at least,

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in a curiously suggestive manner, what an easy task it is, on the one hand, to dispose, in one moment, of the literary treasures collected during many years with much care, and at great cost, by order of one's ancestors; and, on the other, how much labour and time it requires to replace such intellectual stores for the future benefit of one's children after they have once been parted with. George IV. effected the said "transfer" to the nation of more than sixty-five thousand choice volumes, forming the "King's Library," by merely writing a short note; whereas it has almost taken the time allotted by nature to one entire generation to collect the forty thousand volumes, which now supply at Windsor the place of the older collection as it is now to be seen at the British Museum—where, until recently, it has been generally looked upon as a monument of royal munificence. As the word "given" is made use of without any further qualification in the commemorative inscriptions placed above the doors of the room now containing what was once the "King's Library," we are bound, in truth, to quote the following passage from Mr. Edwards's *Memoirs of Libraries*. "It may be matter of regret," says he, "but it cannot be 'matter of surprise, that the public 'character of George IV. is in no wise 'ameliorated by this gift, splendid as 'it was. In these days of scrutiny, 'the gift, indeed, has been made to 'throw a darker tinge into what was 'already dark enough. The library, it 'now appears, was to have been sold 'to Russia. But Lords Liverpool and 'Farnborough strenuously opposed such 'a national disgrace. The former, then 'Prime Minister, is said to have been 'forced to expostulate 'vehemently' 'with his royal master. To Lord 'Farnborough—who is supposed to

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"have first heard of the scheme of "expatriation in talking with Princess Lieven—a large portion of the debt "of public gratitude is certainly due. "The late Mr. Croker gave a different "version of the story, by stating that "the motive of the gift was to lessen "the cost of the 'repairs' of Bucking- "ham Palace, by setting at liberty cer- "tain rooms which the library then "occupied."¹

Some choice works, however, besides the art collection, which had formed part of the "King's Library," escaped the dangers of this contemplated "expatriation," and the vicissitudes of the above-mentioned "transfer," as they were retained for King George IV. Among those works is the famous Mentz Psalter of 1457, of which there are only two other copies in existence; but of these the one belonging to the Imperial Library at Vienna, though more perfect in some respects, is inferior in others. The Berlin copy is inferior to both the others. This rare and invaluable work had, during many years, formed an integral part of the University Library at Gottingen, and was, in a strange fit of equally excessive and injudicious loyalty, presented to King George III. upon the occasion of his coronation, by a deputation of professors chosen from among the Senate of the above university. It has, since then, become rather a matter of doubt, whether those gentlemen had any right to exercise their individual liberality at the expense of a foundation over which the corporation, by whom they had merely been delegated for congratulatory purposes, had, as such, no direct control. History, at all events, is not able to record the existence of any document sanctioning this gift, nor what advantage, besides the barren satisfaction of a gracious acceptance of this loyal present, accrued to the University of Gottingen, to console it for the otherwise irreparable loss of this much-cherished volume from amongst the rarities and treasures of its ancient and famous library. Besides this Psalter, there are, among the retained works,

some of the earliest printed books with a date—such as the vellum Caxton, the rare Aldine Virgil of 1505, the Doctrynal of Sapience, and the much-prized copy of Shakespeare of 1632, which was given by Charles I. to Sir Thomas Herbert immediately before his execution, and bears that unfortunate monarch's signature upon the title-page.¹ There were also retained the following works:—Boccaccio's *De Mulieribus Claris*, folio, Ulmæ; Joannes Zainer, 1473, editio princeps; *Dialogus Creaturarum Moralizatus*, folio, Goudæ; Gerardus de Leeu, 1482; *Falconia, Proba, Excerptum e Maronis Carminibus*, etc. 4to; Glanvilla, *De Proprietatibus Rerum*, in folio maximo; Horatii Opera, Landini, Venetiis, 1483, folio, Josephus, *De Bello Judaico*, Latine, folio, Romæ, per Arnoldum Pannartz, 1475; *Lactantius*, Romæ, folio, 1468; *Missale ad usum Ecclesiæ Sarisburiensis*, folio, Rothomagi, Martin Morin, 1497—besides a goodly number of other old books, chiefly Greek and Roman classics,² and last, but not least, the finest extant manuscript copy of the Shah Jehan Namâh, written in beautiful Persian character, with numerous and costly illuminations and pictures, of an equally rare and curious character, and very perfect after their fashion.

The first step towards the formation of a new "Royal Library," to replace what had been the "King's Library," consisted in the appointment of Mr. Glover to the office, purposely created, of "Librarian to the King." This gentleman had, before the "transfer" of the above collection, occupied the post of sub-librarian, and was thereupon made keeper of the royal collections of prints and drawings. The retained works above enumerated were also committed to his care; and, when he assumed his new office, it was determined that the contemplated formation, or rather compilation, of a new collection of books, to be worthy of the name of "Royal Library," should forthwith be commenced. It was in the year 1833 that the Private

¹ Vide Edwards, *ubi supra*.

² *Gentleman's Magazine*, vol. i. New Series, pp. 236, 237.

¹ *Memoirs of Libraries*, vol. i. pp. 472-474.

Library of King George III., as well as what was termed his "Nobleman's Library," at Windsor Castle, and his "Gentleman's Library" at another palace, the Private Libraries of Queen Charlotte from Kew, and the Prince Regent's Library from Carlton House, were brought together for this purpose at Cumberland Lodge, in Windsor Great Park, in which place the books, maps, and papers of William Duke of Cumberland were already kept.

These *disiecta membra* of miscellaneous literature, piled together into one large heap, formed the incongruous mass out of which, under the auspices of Mr. Glover, was to be resuscitated the body of the "Royal Library." It need hardly be mentioned that, with such a process, the quantity of volumes assembled was, in proportion, far greater than the value of the works it comprised. These consisted chiefly of old, but by no means choice, editions of ancient and modern classics of nearly all countries in Europe; but there were also topographical works mainly relating to Great Britain, county histories, a multitude of ancient historical works, mostly in Latin, and many relating to the middle ages of Italy, France, and Germany, written in the languages of their respective countries. There were also some early printed books—such as several Aldines and Elzevirs—but in a few instances only of some rarity or value. Mediocrity and confusion were the predominant features of this accumulation of chaotic wisdom; which was not enhanced by the circumstance that it was represented chiefly by a motley number of duplicates and triplicates.

Cumberland Lodge was, however, soon found neither sufficient with regard to the necessary roominess for properly sheltering the miscellaneous multitude of books, nor convenient in situation, owing to its distance from the royal residence. It was, therefore, decided that all these so repeatedly transported volumes should undergo one more removal before they were to be finally deposited at Windsor Castle itself. The internal arrangement and fitting up of the

apartments destined to hold the library was intrusted to Sir Jeffry Wyattville.

The part of the Castle in which they are situated faces towards the north, overlooking a corner of the town of Windsor, and, somewhat further off, Eton. It was built by order of Queen Elizabeth, and formed, for many years, the suite of rooms specially devoted to the royal residence. These apartments are spacious and elegant in their distribution. The largest of them, which is very fine both in its size and proportions, measures nearly eighty feet in length, and is very well lighted, both as a room and as a library, by seven large windows, commanding a fine view over the beautiful landscape, from which it acquires additional stateliness to the eye of the beholder. Not far from this noble apartment is the curious and elegant Blenheim Room—so called because it was there that Queen Anne, whilst sitting in her favourite boudoir, received the first news of the famous victory gained by the great Duke of Marlborough. It is a small polygonal chamber, constructed in the form of a lantern in the turret over the Norman gateway, and is, therefore, exquisite both in shape and site. Formerly it was a bay to King Henry VII.'s room, adjoining the end of Queen Elizabeth's Gallery; and in it used to be hung the flags presented each year upon the anniversary of the celebrated battle by the great duke and his direct male descendants, up to the present day, but which are now deposited in another part of the Castle.¹ Through each of its four

¹ Before the appropriation of the suite of apartments to the purposes of the Royal Library, the turret which was built by Henry VII. was used as a place of deposit for the Marlborough flags. According to the terms by which the Duke holds the castle of Blenheim, he is bound to send annually to Windsor Castle, on the anniversary of the battle, a white silk banner with the "Fleur de Lys" embroidered upon it. The last received was laid in the turret, and, when the next arrived, was hung up with those which had been received every year since the estate was vested in the family of the Churchills. The Duke of Wellington holds Strathfieldsaye upon similar terms, and annually sends a silken tricolour to the castle.

narrow, but light and airy, windows, one enjoys a different prospect for many miles around, over the well-timbered country and the green pastures bordering upon the banks of the, here as yet unpolluted and clear, river Thames. All these views offer so many charming pictures of "smiling fields," so truly English in their character, that one would have to seek in vain for their equals in many other countries. There is, at least to our knowledge, hardly any other library which could rival this one at Windsor Castle with regard to its situation, and the charms of its "surroundings." In all these respects it is truly royal, as well as in the character of its furniture, which is sumptuous and comfortable without being gaudy, and in its architectural decorations, which are sufficiently ornamental without being either extravagant or tasteless.

Let the reader only fancy himself seated in one of those substantial and commodious arm-chairs, either in the large room or in the Blenheim Chamber, turning over the leaves of a curious book, or gazing, in a tranquil state of mind, through one of the windows looking down upon the rural scenes below, and he will realize to his mind that which the ancient Romans called the *otium cum dignitate*. That the chiefs of that imperial people were accustomed to associate this sentiment of theirs with similar places, is proved by the silent, yet eloquent testimony afforded by the magnificent ruins of the various imperial libraries in and about the Eternal City. The still imposing remains of the libraries of Tiberius and Diocletian at Rome, and those of Hadrian at Tivoli, are worthy monuments of the high estimation in which literature and learning were held by those great rulers.

But to return from Imperial Rome to Royal Windsor. Sir Jeffry Wyatville terminated, in 1834, the necessary preparation of the suite of apartments which were henceforth to contain the collections of the Royal Library. During the following years, the books, which had been provisionally assembled at Cumberland Lodge, were gradually brought

to the Castle, and there deposited in the various presses specially prepared for their reception. The plan according to which these volumes were finally arranged and put to rest after their numerous adventures and vicissitudes, partook, however, in its character and execution, more of the architectural than the bibliographic. To judge by the results of the combined operations of the knight and the librarian, the individuality and views of the former seem evidently to have predominated; for, according to his judgment, bibliographic considerations were rigorously subordinated to architectural design and exigencies, and the books were, consequently, marshalled upon the various shelves merely after their size, and without any regard to their contents, in strict accordance to the established principles of proportion, uniformity, and outward beauty. Folios filled the two lower shelves; then came, in regular succession, quartos, octavos, and duodecimos, all *secundum ordinem*—presenting to the admiring spectator scrupulously symmetrical rows and covers of a proper style of book-furniture.

This sort of arrangement, however tasteful and elegant in itself, will very probably be less convenient and pleasing to the more serious student than to the mere looker-on; but then, let it be remembered, for the sake of Sir Jeffry Wyatville, that he was not the original inventor of such a system. He merely imitated what other people had done long before him. For, "Big books on the lower, and little books on the upper shelves; but let them be nicely bound," was a mode of patronizing literature which was as well known in the Vicus Sandalarius, or the Argiletum, as in Little Britain or Pall Mall. Some specimens of collectors of this class have been embalmed for us by Seneca, and others of them have their little niches in the galleries of the satirical poets. But the brilliant invention of what the bookbinders call "dummies," appears to have been reserved for the moderns, although something approximating towards it has been noticed on the walls of a room

"in the house of the tragic poet at Pompeii." ¹

After what has already been stated, it is but natural that, in such a collection of books, early French memoirs and indifferent romances were numerous to superfluity; but we must refrain from mentioning their number and proportion to the other works, lest it should look like an exaggeration. This chance assemblage of literature enjoyed its undisturbed repose for the twenty-four years during which the late Mr. Glover held the office of Librarian to the Queen, in that order in which it had been definitely arranged upon its installation at Windsor Castle.

But thanks to the, in such matters, ever-active and beneficial influence of the late Prince Consort, supported by the zeal and knowledge of Mr. Woodward, the judiciously appointed successor to the former librarian, the whole *régime* of the royal library has, of late, undergone the most essential and salutary changes. It was only natural that he whose mind was so clear, refined, and cultivated, could not bear the idea that there should be under the very roof of his own residence a collection of more than forty thousand volumes next to useless, merely because of the want of order and proper arrangement. On the other hand, it is no wonder that, until he took the matter into his own consideration, the royal library, though containing much riches, was not much more than an almost nominal appendage to the furniture of the royal household, and that the not unimportant office of Librarian to the Queen had, from want of due encouragement, gradually sunk into a mere sinecure.

The interest which the late Prince Consort took in this special subject, so congenial to his general character, tastes, and disposition, soon communicated itself to others. Under his influence the Royal Library assumed, as a useful establishment, new life. There is something touchingly illustrative—since he is no more—with reference to the character and worth of the man, in the sort of relation in which

the royal patron of learning and the fine arts at large placed himself towards this more private object of his attention. When he was residing at Windsor Castle, most of his leisure hours were spent in the apartments of the Royal Library. There he delighted in looking at the curious works of art and of literature, not merely with the eye of what is commonly understood by the appellation of a "connoisseur," but with the keen and rapid glance of a real critic; for he not only knew what he was looking at, but was also fully able to reason upon and to judge of the many varied subjects which there came under his notice. There, also, he used to discuss the future objects and arrangements of the Library—how matters were to be managed, and in what branches new acquisitions should be made, in order to increase the value of what was already extant. And thither he was in the habit of conducting his children, in order to infuse into their minds part of his own love for what was accomplished, elegant, and refined. He likewise encouraged the various members of the household, as well as the guests staying at the Castle, to avail themselves of these resources for pleasant recreation, and for the acquisition of useful knowledge; and, by his care, they were made easily and agreeably accessible to all who felt inclined to profit by the different advantages they offered. It was in such places and at such times that the Prince ought to have been seen, in order correctly to appreciate the man. Those who have merely known him upon state occasions, or in public, will hardly be able to realize to themselves his picture as he was in private life, when freed from the irksome restraints of representation and officiality. There the reserve of the Prince, whose natural shyness so many people mistook for pride, vanished altogether before the kind cordiality of the man's warm heart. And, when all his finer qualities and feelings came into play, the casual observer could not but be highly gratified at what he was contemplating. Being as superior in mind as he was in position, he knew well how, at the same time, daily to exercise

¹ Memoirs of Libraries, vol. i. p. 29.

that superiority, and also to make those with whom he might happen to be engaged in more familiar converse for the moment, unconscious of the existing disparity in rank and position. This advantage arose from his possessing that delightful gift to its full extent—a quality as rare as it is charming—of being affable in the true and highest sense of the word. For his affability was never spoiled by any admixture of that sort of condescension which frequently exercises a more irritating than soothing influence upon those whom it is meant to please.

Although the plans of the Prince with respect to the Royal Library, as with respect to the many other matters of more public importance that interested him, have been immaturely arrested, one may venture to hope that they will be carried out to the extent to which he himself intended to see them fulfilled. These plans, to state them briefly,

were to form a good gentleman's and diplomatist's library—to be particularly well supplied in the departments of general art and history; after that, to be well provided with topographical, genealogical, and heraldic works of reference and of authority; and, as for the remainder, to contain so much only as would be sufficient for general knowledge, without approaching professional completeness in any of its other branches. All this can, of course, only be accomplished after some time; for the work of arranging the different departments in a useful and systematic manner, of cataloguing all the books, and of supplying the various deficiencies, is a slow and laborious one. Yet, when it is completed, it must be matter of satisfaction to know that the home of the best of living sovereigns is not wanting in one of the chief means for insuring the intellectual and moral welfare of her children.

THE SONG OF ROLAND.

[Few people comparatively are aware of the wealth of poetry to be found in the French language, in the shape of its middle age epics. The grandest of these, and in its present form probably the oldest, the "Song of Roland"—written apparently by a priest named Turol—holds historical claim to English attention, not only from the circumstance of its earliest MS. being one of the treasures of the "Bodleian," but from its connexion with one of the half-dozen greatest events in our history, the battle of Hastings. To the sound of a "Song of Roland," and in all likelihood, this very one, England was conquered by the Normans. For Wace tells how "Taillefer who full well sang—on "a horse that fast went—before them "went singing—of Charlemain and of "Roland—and of Oliver and of the "vassals—who died in Roncevaux."

Of the poem in question, which appears to be of the eleventh century, several editions have appeared in France,

and more than one translation amongst ourselves, such as the small quarto one by Mrs. Marsh, from a modern French version in the "*Revue des deux Mondes*." I believe, however, that the poem remains entirely unknown to the bulk of Englishmen, and that I shall be directing most readers to a new source of delight in giving them the following analysis, or abridged translation of the work, from the oldest text.—J. M. L.]

"Charles the king, our great emperor, "seven years quite full has been in "Spain. As far as the sea he conquered the haughty land; no castle "is there that remains before him; wall "nor city is left to be broken, save "Saragossa, which is on a mountain. "King Marsile holds it, who loves not "God; Mahomet he serves, and in- "vokes Apollo."¹

¹ The confusion here indicated between Mahomedanism and Paganism runs through all the popular thought of the middle ages.

Sitting in an orchard under shade, more than 20,000 men around him, Marsile calls his dukes and counts to council, as to how he may rid himself of Charlemain. One only answers him—the wise Blancandrin ; who advises him to send a friendly embassy to Charles, with splendid presents, offering to go and do fealty to him at Michaelmas, and receive Christian baptism, giving ten or twenty hostages if necessary. He will himself send his son ! The Franks will depart, Michaelmas will come and go without tidings of the paynim, the proud king will cut off the hostages' heads ; but it is better they lose their heads "than that we lose bright Spain the fair !"

The advice is taken ; envoys are sent with the lying message, on white mules, with olive branches in their hands. They come to Charlemain, who has just taken Cordova—sitting he too in "a great orchard," by him, Roland and Oliver, and other chiefs, and 15,000 men of "sweet France." The knights are sitting on white cloths, playing at draughts and chess ; agile bachelors are fencing ; on an arm-chair of gold, under a pine-tree, beside a hawthorn, "sits the king "who holds sweet France ; white is his "beard, and flowered all" (*i.e.* white-haired) "his head, comely his body, "proud his countenance. If any asks "for him, there is no need of pointing "him out." The messengers deliver their message. King Marsile will give largely of his treasures—bears and horses, and greyhounds in leash, 700 camels and a thousand moulted hawks, 400 mules loaded with gold and silver, fifty carts filled with the like to pay the soldiers. Charlemain has been long enough in this country ; he should go to Aix ; there the king will follow him !

"The emperor stretches his hands "toward God, bows his head, begins to "think. . . . In his words never was he "hasty ; his custom is to speak at "leisure." Lifting his head, he asks what warrant he shall have of such words ? The hostages are offered, the pledge of baptism is given. The emperor gives no answer, however, that

night, but has the messengers nobly entertained, and summons his barons to council for the next morning, under a pine-tree ; "By those of France," (*i.e.* by their advice), "he means wholly to walk."

They come—Duke Ogier and Archbishop Turpin ; Richard the old and his nephew Henry ; brave Count Acelin of Gascony ; Theobald of Reims and his cousin Milo ; Gerer and Gerin ; Count Roland, and Oliver the brave and comely ; and Guenes (or Ganiolo), "who did the treason." The emperor sets forth Marsile's offers. Roland starts to his feet. "Ill shall ye credit Marsile !" Once before the same attempt was made ; 15,000 pagans were sent with olive branches in their hands, using the same words ; the emperor sent two of his counts ; but the pagan king cut their heads off. "Make the war as you have "undertaken it ; lead all your host to "Saragossa, besiege it all your life-long, "avenge those whom the felon has "killed !"

The emperor's visage darkens ; he answers nought. All are silent, save Ganiolo, who rises and comes before Charlemain, and proudly speaks : "When King Marsile offers you that with joined hands he will become your man, and will hold all Spain by your gift, and then will receive the law we hold, who advises you that we reject this plea, he cares not, sire, of what death we die. It is not right that pride's counsel should have the upper hand. Leave we the fools, and hold we by the wise."

Naymes (of Bavaria) comes after him—"better vassal in the court was none." "King Marsile is vanquished, he cries mercy ; it would be a sin to do more to him ; this great war should go no further." "Well hath the Duke spoken," say the French.

"Lord Barons, whom shall we send to Saragossa, to King Marsile ?" Naymes offers to go ; the emperor tells him he is a wise man, and shall not go so far from him. Roland offers ; Oliver objects that he is too proud and might do mischief, but could well go himself ; the emperor forbids them both. Arch-

bishop Turpin offers in turn, and is in turn silenced. The emperor tells the knights to choose a baron for messenger. "Ganilo, my stepfather," suggests Roland. "You shall send none wiser," say the French.

Full angry was Count Ganilo; from his neck he threw his great furs of sable, and remained in his tunic. "Hazel" were his eyes and full proud his visage, "comely his body and broad his sides;" all his peers look at him with admiration. "Fool!" says he to Roland, "what madness is this? Well do men know that I am thy stepfather. Hast thou judged that I go to Marsile? An' God grant that I return from thence, I will moot thee such a counterblow as shall last thee all thy life!"—"Am I proud and a fool?" answers Roland. "Well do men know I care not for threats. But it should be a wise man to do the message. If the king choose, I am ready to do it for you." Ganilo declares that he will go, after a short delay to lighten his "great wrath." Roland laughs on hearing this. Ganilo is ready to burst with rage. He addresses the emperor. Since none who go to Saragossa can return, he recommends to him his fair son Baldwin, the son of the emperor's sister; to him he leaves his honours and his fiefs; "keep him well; with my eyes I shall never see him." "Your heart is too tender," replies the emperor; "since I order it, it befits you to go." And he offers him the "staff and the glove," apparently the insignia of his embassy. "Sire," says Ganilo, "Roland has done all this; I will not love him all my life long, nor Oliver, for that he is his companion, nor the twelve peers, for that they love him so. I defy them, sire, before your eyes." Then said the king: "You are too ill-minded; now shall you go, for certain, when I command it." "Go I may, but without warranty"—i.e. for my life. As the glove is handed to him he lets it fall, an evil omen which strikes all the French. He takes his leave at once, and departs in stately array, amid much lamentation from his knights, whom he charges to greet for him his wife, and

Pinabel his friend and peer, and his son Baldwin, whom they are to hold for lord.

He rejoins the Saracen messengers, and speaks with Blancandrin. The latter begins by dwelling on Charlemain's achievements, who has conquered Apulia and all Calabria, passed the salt sea to England, and conquered the tribute of it to the Holy Father. But what does he want in the Spanish marches? Evil work do those dukes and counts who so advise their lord! "I know none such," replies Ganilo, "but Roland. The emperor was sitting under the shade in a meadow by Carcassonne; came his nephew, in his hand a ruddy apple. 'Behold, lord!' said Roland to his uncle, 'of all the kings I present you the crowns.' His pride should well confound him, for every day he gives himself away to death. Were he killed, we should all have peace." They ride on, and end by pledging each other that they will seek Roland's death.

They reach Saragossa, and find King Marsile sitting under a pine-tree, twenty thousand Saracens around. Blancandrin gives account of his embassy; Charlemain has returned no reply, but has sent a noble French baron, from whom they shall hear whether they will have peace or not.

"But Count Ganilo had well be- thought himself; by great wisdom he began to speak, as he who well knows how." Charles's message, he tells the king, is that he should become a Christian, and receive half Spain in fief; if not, he shall be taken and bound, carried to Aix, and there judged and put to death. The king is so enraged that he would have pierced him with a javelin, if not hindered. Ganilo, seeing this, puts his hand on his sword, draws it two fingers' length out of the scabbard: "Sword," says he, "full fair and bright are you; so long have I borne you at the king's court, that the emperor of France shall never say that I die alone in the strange land; ere that, the best shall have paid for you!" The Saracens interfere to stop the quarrel. Ganilo declares that "for all the gold that

"God made, nor for all the riches in the land," would he have spared to give Charlemain's message. "He was wrapped in a mantle of sable, that was covered with a cloth of Alexandria. He throws it down, and Blancandrin receives it; but his sword he would not quit; in his right fist by the golden hilt he held it. The pagans say 'a noble baron is here.'" He goes on to develop the message. Charlemain will give Marsile half Spain in fee; "the other half he will give to Roland his nephew; a full proud joint-tenant you shall have there." If not, he will be besieged in Saragossa, bound, taken to Aix neither on palfrey, charger, nor mule, but thrown upon a wretched baggage-hack, and at Aix lose his head. In proof whereof he hands him the emperor's letter. Marsile, "discoloured with rage," breaks the seal, flings the wax away, and reads out the contents, by which Charlemain bids him, moreover, send as hostage his uncle the Khalif. Marsile's son asks that Ganilo be delivered to him, and he will do justice of him. Ganilo, hearing this, brandishes his sword, and sets his back against the pine trunk.

But the king enters into the orchard with the best of his men; Blancandrin bids him call the Frenchman, for he has pledged his faith for their behoof. At the king's bidding he brings Ganilo. "There they treat of the unrighteous treason." Marsile begins by apologizing for his rashness, and offers Ganilo five hundred pounds' worth of gold in sables; before to-morrow night he will have made amends. He then begins to speak of Charlemain. "He is very old; his time is spent; methinks he is more than two hundred years old. Through how many lands has he carried his body! how many blows received on his shield! how many rich kings led to beggary! When shall he ever be tired of warring?" Ganilo replies: "Not such is Charles. None can see him and know him, but will say that the emperor is a man. I cannot so praise nor vaunt him to you, but that there shall be in him yet

"more honour and goodness. Who could recount his great valour? God has enlightened him with such a baronage, as would rather die than leave his barony." The pagan says: "I marvel much at Charlemagne, who is grey and old. Methinks he is two hundred years old and more. Through how many lands has he worked his body! how many blows received of lances and swords! how many rich kings led to beggary! When shall he ever be tired of warring?" "Never," said Ganilo, "while his nephew lives. There is no such vassal under heaven's cope. Full equally brave is his comrade Oliver; the twelve peers, whom Charles holds so dear, form the vanguard, with twenty thousand knights. Charles is secure; he fears no man."

Marsile boasts in turn of the four hundred thousand knights whom he can bring forward. Ganilo warns him to do no such thing. "Leave folly, hold by wisdom. Give so much wealth to the emperor that every Frenchman shall marvel. For twenty hostages that you shall send to him, the king shall return to sweet France; his rear-guard he will leave behind him; there will be his nephew Count Roland, I think, and Oliver the brave and courteous. Dead are the counts, if any will believe me. Charles will see his great pride fall; and he will have no mind ever to make war upon you."—"Fair Sir Ganilo, an' God bless you, how shall I kill Roland?" Ganilo tells him that, when the king shall be at the pass of Sizer, his rear-guard behind him, with Roland and Oliver and twenty thousand French, he is to send a hundred thousand pagans against them. There will be great slaughter; but a second battle must be fought, and in one or the other Roland would perish; and, Roland dead, "Charles would lose the right arm of his body," and "the great land¹ would remain in peace." They mutually swear to the treason; Ganilo on the religion contained

¹ "Terre Major," i. e. France, a remarkable expression of this poem.

in his sword-hilt, Marsile on a book of "the law of Mahomet and Termagant." One of the Saracens now gives his sword to Ganilo, another his helmet; Queen Bramimond two bracelets for his wife; the king promises him "ten mules laden with finest gold of Arabia," and this year by year. Ganilo departs with the keys of Saragossa, the presents and the hostages.

He reaches the emperor of a morning, as he sits on the green grass before his tent, Roland with him; and Oliver and Naymes, and a good number of others. He delivers the lying message. If he has not brought the Khalif, it is because with his own eyes he has seen him and 300,000 men all shipwrecked and drowned four leagues from the shore! Before a month Marsile will follow the emperor to France, to receive the Christian law and hold Spain of him! The king thanks him for his services. A thousand trumpets sound throughout the army; the French raise their camp, load their sumpter horses, and depart for "sweet France." But, while they march homeward, the Pagans ride by the upper valleys, hauberks on, banners folded, helmets closed, swords girded, shields on neck, and lances in rest; they tarry in a wood on the summit of the hills; 400,000 men await the day-break. "God! what sorrow that the French know it not!"

The emperor is troubled with evil dreams. At one time he dreams that Ganilo seizes his lance, and shaking it causes it to fly in pieces; at another, that, being at Aix, a boar bites his right arm, and a leopard from Ardenne assails him; but a hound comes leaping, bites the right ear of the boar, and wrathfully fights the leopard. At dawn he asks his barons whom he shall entrust with the charge of the rear-guard. "Roland, my stepson," answers Ganilo; "no baron have you of so great vassalry." "A devil alive are you," replies the king; "deadly rage has entered your body. And who shall be before me in the van-guard?"—"Ogier of Denmark," says Ganilo; "you have no baron who can do it better than he."

Roland declares that, since the rear-guard is adjudged to him, the king shall lose nor palfrey, nor charger, nor ridable mule, nor hack, that shall not have been paid for by their swords. "Give me," says he to the emperor, "the bow you hold in your fist; methinks they shall not reproach me that it fall from me, as did to Ganilo the staff which he received with his right hand." The emperor's countenance darkens; "he fingers his beard and untwists his moustache;" he cannot help weeping. Naymes sees Roland's wrath, and begs the king to give him the bow; which he does. The emperor presses Roland to retain with him half the host. "I will do no such thing," replies Roland; "I will retain 20,000 full brave Franks; pass the gates all in safety; never shall ye fear any man while I live."

He mounts his charger; to him come Oliver his mate, and Gerin, and brave Gerer, and Berenger, and old Anseis, and proud Gerard of Roussillon, and rich duke Gaifer, and the other peers. "By my head, I will go!" says the archbishop. "And I with you," says Count Walter; "I am Roland's man; I ought not to fail him." Twenty thousand knights are thus chosen out. Count Roland calls Walter of Luz, and tells him with 1,000 men to occupy the depths and heights, that the emperor may lose none of his men.

"High are the mountains and gloomy" "the valleys, dark the rocks, marvellous" "the defiles." When the French approach the "great land," they see Gascony, and remember "their fiefs and their" "honours, and their damsels and their" "gentle wives; there is none of them" "but weeps for pity. Charlemain is" "anxious above all the others; he has" "left his nephew at the gates of Spain." Duke Naymes rides beside him, and asks him why he is heavy-hearted. Charles tells him he fears Ganilo will destroy France; he has adjudged Roland to the rear-guard, whom if Charles loses, he will never have his match. Seeing him weep, 100,000 French are moved, and fear for Roland.

Meanwhile, Marsile has summoned all his men, 400,000 in three days. After exposing Mahomet to their adoration on the highest tower in Saragossa, they ride by hill and dale till they see the pennons of the twelve peers. Marsile's nephew comes forward on a mule, and, laughing, asks a guerdon of the king for many a service, "the blow of Roland," whom he means to kill with his sharp sword. Marsile "gives him the glove" of it. He then asks for eleven of the barons, to fight the twelve peers. Falsaro, Marsile's brother, king Corsalis; Malprimis of Brigal (swifter footman than a horse); Turgis count of Tourtelouse; Margariz of Sibille, the friend of ladies through his beauty; Cherenuble, whose hair sweeps the ground, who bears a bigger load for sport than four mules for baggage, who comes from a land where "sun shines not, nor corn can grow, nor rain falls, nor dew wets, nor is there stone that be not all black—some say that devils dwell there"—with others, offer themselves for the purpose, all boasting of what they will achieve. One hundred thousand Saracens go with him, and arm in a larch grove.

"Clear was the day and fair was the sun; no garment have they but it all glitters like fire; they sound a thousand trumpets for mere comeliness. Great is the noise; the French heard it. Said Oliver: 'Sir comrade, methinks we may have battle of Saracens.' Answers Roland: 'And God grant it us! Well ought we to be here for our king. For one's lord should one suffer distress, and endure great heat and great cold; one should lose both leather and hair. Now look every one to fulfil such great blows, that evil song be not sung of us! Pagans are in the wrong and Christians in the right. Evil example shall never be of me.'"

Oliver has climbed on a high pine-tree; he looks to right amidst a grassy vale; he sees come that paynim folk; he calls Roland, his comrade: "Toward Spain, I see come such a tumult, so many white hauberts, so

"many glittering helmets! These shall do a great mischief to our French. Ganilo knew it, the felon, the traitor, 'who judged us' (i.e. assigned this post to us) 'before the emperor.'—'Hold thy peace, Oliver,' answers count Roland; 'he is my stepfather, 'I will not have a word said of him.' Oliver sees so many Saracens that he cannot even count the troops of them. All bewildered he descends from the pine tree. 'I have seen so many Pagans,' he tells the French, 'never man on earth saw more! . . . Ye shall have a battle, never was the like! Lord barons, have virtue from God; stand 'to the field, that we be not beaten!' 'Cursed be he that flees!' say the French; 'never for dying shall one man fail you.' 'Comrade Roland,' Oliver pursues, 'now blow your horn; Charles will hear it; the host will return.'—'I should do as a madman! 'In sweet France I should lose my praise! I will strike always great blows with Durandal; the brand shall be bloody to the hilt; ill shall come the felon pagans to the gates; I pledge you they are all judged to death.'—'Comrade Roland, now sound the ivory horn. Charles will hear it; he will make the host return. The king with his barony will succour us.' Replies Roland:—'May it not please the Lord God that my kinsmen be blamed for me, nor sweet France fall into contempt! Rather will I strike enough with Durandal, my good sword that I bear girded to my side. You shall see the brand all bloody. Ill gathered themselves together the felon pagans. I pledge you they are all given over to death.'—'Comrade Roland, sound your ivory horn; Charles will hear it, who is passing at the gates. I pledge you the French will return.'—'May it not please God,' replies Roland to him, 'that it be said by any living man that I have blown horn for pagans! Never for this shall my kinsmen have reproach. When I shall be in the great battle, and I shall strike a thousand blows and seven hundred, you shall

'see the bloody steel of Durandal.
'The French are good; they will strike
'as vassals; those of Spain shall have
'no safety from death.' Said Oliver:
'I know no blame of this. I have
'seen the Saracens of Spain: covered
'with them are the vales and the moun-
'tains, and the brushwoods and all the
'plains. Great are the hosts of that
'strange folk; a full small company
'have we.' Answers Roland: 'My
'desire is all the greater. May it not
'please God, nor His saints nor His
'angels, that ever for me France lose
'her worth! I had rather die than
'shame should come to me. The
'better we strike the more the em-
'peror loves us.' Roland is brave and
Oliver is wise. Both have wonderful
vassalage (i. e. bravery); now that they
are on horseback and in arms, never for
death will they eschew battle; good are
the counts and high their words."

Oliver still remonstrates. Roland,
"prouder than lion or leopard," calls
the French, and speaks aloud to Oliver.
"Sir comrade, friend, speak not so!
The emperor, who left the French in
our care, placed apart 20,000; to his
mind there was not one coward among
them. For one's lord one should suffer
great ills, and suffer strong cold and
great heat: one should lose blood and
flesh. Strike with thy lance, and I with
Durandal, my good sword, which the
king gave me. If I die, he who has her
may say, 'This sword belonged to a
noble vassal.'" The Archbishop Turpin
his horse makes a sermon to the French:
"Sir barons, Charles left us here; for
our king well should we die. Help to
sustain christendom. Ye shall have
battle, ye are all sure of it, for with
your eyes you see the Saracens. Cry
your sins; pray God's mercy; I will
absolve you to heal your souls. If ye
die, ye will be holy martyrs; ye shall
have seats in the highest paradise." "The
"French dismount; they kneel on the
"ground; the Archbishop blesses them
"in God's name; for penance he com-
"mands them to strike." The French
then rise, mount their horses, and place
themselves in battle array.

Roland is at the gates of Spain on
his good horse *Veillantif*, in his hand
his broadsword, the point towards
heaven, a white pennon laced to the
top; his golden reins float in his hands.
"Full comely was his body, his visage
"bright and laughing. After him came
"following his comrade; those of
"France claim him to warranty. Proudly
"he looks towards the Saracens, towards
"the French humbly and mildly; cour-
"teously he says a word to them: 'Sir
"barons, ride on gently; these pagans
"go seeking a great martyrdom. To-
"day shall we have booty fair and
"great; so worthy never had King of
"France.' At these words the hosts go
"joining each other. Said Oliver: 'I
"care not to speak. You deigned not
"to sound your ivory horn; nor shall
"you have aid from Charles. He knows
"not a word of it, nor is he in fault,
"the brave one. Those who are there
"are not to blame. Lord barons, hold
"the field; by God, I pray you, be
"resolved to strike blows, to receive
"and to give. The war-cry of Charles
"we should not forget.' At these words
"the French cry out; and who should
"hear them shout '*Monjoie!*' might
"well remember vassalage."

The battle begins by a single combat
between Roland and Marsile's nephew,
whom Roland attacks with such fury,
that he cleaves him down the spine.
Then Marsile's brother, *Falsaro*, who
"held the land of *Dathan* and *Abiram*,"
half a foot broad between his eyes, is
killed by Oliver. Archbishop Turpin
runs his great spear through King
Corsalis; *Angelier* kills *Malprimis* of
Brigal; *Gerer* his comrade another cham-
pion. "Fair is our battle," said Oliver.
Duke *Samson* cuts a sixth through
heart, and liver, and lungs. "A baron's
blow," says the Archbishop. *Anseis*
kills *Turgis* of *Tourtelouse*; other peers
each their man. Of the twelve Sara-
cen peers two only remain, *Cher-
nuble* and *Margariz*, a "full valiant
"knight, fair and strong, and swift and
"light," who has a pass of arms with
Oliver, but without result. The battle
is now general. After fifteen blows

Roland's spear breaks, and he draws Durandal, with which he splits atwain both Chernuble and his horse. Oliver, with the stump of his broken spear, brains a pagan, strikes and hits on all sides till the wood splinters to his very hand. "Where is, your sword Haultclear?" asks Roland. Oliver draws it, and cleaves in turn a pagan and his horse. "For such blows the emperor loves us," cries Roland. The Archbishop kills an enchanter, who, led by Jupiter, has already been in hell. "Brother Oliver," cries Roland, "fair are such blows to me." The pagans die by thousands and by hundreds; who flies not has no warranty against death. But "the French will not see again their fathers nor their kindred, nor Charlemain, who waits for them at the gates. "In France there is a marvellous tempest, a storm of thunder and of wind, rain and hail beyond measure. Many a lightning falls, and frequent earthquakes truly are there from St. Michael of Paris to Sens, from Besançon to the port of Wishant. There is no shelter whereof the walls crack not; against midday great darkness is there, no light save the sky opens. None sees it without dismay; many say, 'Tis the last day, the end of this present age.' They know not nor speak the truth; 'tis the great woe for Roland's death."

"The French have struck with heart and vigour. The pagans are dead, by thousands, by crowds. Of 100,000 not two can escape. Says Roland: "Our men are full brave; no man under heaven has better. It is written in the *geste* of the French that our emperor has vassals indeed.' They go through the field, seeking their men; they weep with their eyes for their kinsmen. Now comes King Marsile with his great host, full thirty troops, 7,000 trumpets sounding the charge. Says Roland, "Oliver, comrade, brother, felon Ganilo has sworn our death; the treason cannot be hid; full great revenge shall the emperor take of it. A battle we shall have, strong and obstinate; never man yet saw the like come together. I will strike with

"Durandal my sword, and you, comrade, strike with Haultclear; in so many good places have we borne them, so many battles have we achieved with them, evil song should not be sung of them."

Before Marsile's host rides the Saracen Abisme, black as pitch, loving more treason and murder than all the gold of Galicia; no man ever saw him play nor laugh. A favourite he of King Marsile, and bears his dragon, to which all the host rally. The Archbishop, seated on a horse which he took from a king whom he killed in Denmark, well cut of the feet, flat of leg, short of thigh, broad in the hind quarter, long in the sides, high in the back, with white tail and yellow mane, and small ears on his tawny head—no beast dare go against him—the Archbishop goes strike Abisme on his gemmed shield, and cleaves him from the one side to the other. "Great vassalage is this," say the French; "with the Archbishop full safe is the cross." Yet, seeing the pagans are so many, the French look often to Oliver and Roland. "Lord barons," says the Archbishop, "go not to think ill. By God, I pray you that ye flee not, that no worthy man sing evilly of it. . . . We shall here have our end; beyond this day we shall be no more alive; but of one thing I warrant you well—holy Paradise is given to you; with the innocents ye shall sit there."

Angelier of Gascony is now killed by a Saracen, the same who gave Ganilo his sword. Oliver, however, takes swift revenge of the peer's death. Then Valda-brun, another of Ganilo's friends, "lord by sea of 400 dromons," who had taken Jerusalem by treason, violated Solomon's temple, and killed the patriarch before the font, kills Duke Samson, whom Roland in turn avenges. An African, of Africa, son of King Malchus, kills Anseis, and is killed by Turpin. The son of the King of Cappadocia kills Gerin and Gerer, Berenger and others, but, meeting Roland, flees before him—yet in vain; with one blow Roland cleaves atwain man and horse. So valiant are the French, that victory

seems long to remain with them. Great is the prowess of Roland, Oliver, and the Archbishop. The number of their slain "is written in charters and briefs; the *geste* says, more than 4,000." But, after four successful encounters, the fifth is "heavy and grievous; all the French knights are killed, save sixty. "Before they die, they will sell themselves dear."

Count Roland sees great loss of his men. He calls his comrade, Oliver: "Fair dear comrade, for God's sake who protects you, see how many good vassals lie on the earth. Well may we pity sweet France the fair; how deserted she remains now of such barons! Ah, friend king, why are you not here? Oliver, brother, how shall we do it? How shall we send news to him?" Said Oliver, "I know not how to fetch him. Better die than shame be drawn on us."

Said Roland then, "I will sound the ivory horn; Charles will hear it, who is passing the gates of Spain. I pledge you the French will return." Said Oliver, "Great shame were it, and a reproach to all your kinsmen. Such a shame would last all their lifetime. When I said it to you, you would do naught. You shall not do it by my advice." . . . "If the king were here, we should have no harm; those who are there ought to bear no blame." Said Oliver, "By this beard of mine, if I may see my pleasant sister Alda, never shall you lie in her arms."

Said Roland then, "Why are you wroth with me?" And he answered, "Comrade, it is your doing; for vassalage by sense is not folly; better is measure than foolishness; Frenchmen are done to death by your lightness. Never shall Charles have service of us. . . . Never shall be such a man till God's judgment. You will die here, and France will be shamed. To-day the loyal company fails us, for before evening grievous will be the parting."

The Archbishop heard them disputing; he pricked his horse with his spurs of pure gold. He came to them and began to reprove them: "Sir Roland, and you Sir Oliver, for God I pray you dispute

not. To blow the horn would now no more avail us; but nevertheless it is full better the king should come; he may avenge us. Those of Spain ought not to return. Our French, descending on foot, will find us dead and cut to pieces. They will lift us in biers, on sumpter horses; they will lament us with mourning and pity; they will bury us in minsters, so that we be not eaten by wolves, nor hogs, nor dogs." Roland answers, "Sir, you speak full well."

Roland has placed the ivory in his mouth. . . . High are the hills, and the voice is full long. For thirty great leagues they heard it answer. Charles heard it, and all his companies. Said the king, "Our men do battle." And Ganilo replied, "If another said it, it would seem a great lie."

Count Roland, by labour and by effort, by great pain, sounds his ivory horn; from his mouth bursts the clear blood forth; the temples of his head are bursting. Of the horn he holds very wide is the hearing. Charles hears it, who is passing at the gates; Naymes hears it; the French listen. Said the king, "I hear Roland's horn. Never would he sound it but in a fight." Ganilo answers, "Battle there is none. You are old, and flowery, and white; by such words you seem a child. You know enough Roland's great pride; great marvel is it that God has so long suffered him. . . . For a single hare he goes blowing his horn all the day; before his peers he goes now boasting. Besides, there is no one who would seek him in the field. Ride on then; why stop you? The great land is full far ahead."

Count Roland has his mouth all bloody; burst are the temples of his head; he sounds the ivory with pain and weariness. Charles hears it, and his French likewise. Said the king, "That horn has a long breath." Replies Duke Naymes: "A baron is labouring at it! There is battle! By my wit, that man betrayed him who sought to deceive you. Make ready, sound your cry, bear succour to your fair vassalry; you hear well enough that Roland is going mad."

The king at once rides back in all haste with his men. He has Count Ganilo seized and handed over as a felon to the cooks of his household, placing him in charge of Bego, the master-cook. A hundred kitchen companions, of the best and the worst, pull out his beard and moustache, and strike him each four blows with their fists; they beat him with sticks; they put a big chain on his neck, chaining him "like a bear," and place him on a sumpter horse for shame.

"High are the hills, and dark, and great; deep the valleys, swift-running the streams; the trumpets sound behind and before. . . . Angrily rides the emperor; anxious and sorrowful the French." But they cannot be in time.

Roland looks to the hills and the moors; he sees so many French lie dead; he bewails them as a gentle knight. "Lord barons, God have mercy on you! grant paradise to all your souls! make them lie in holy flowers! Never saw I better vassals than you; so long have you always served me—so great countries have ye conquered for Charles! . . . Land of France, a full sweet country are you. . . . Barons of France, for me I see you die; I cannot defend nor warrant you. God help you who never lied! Oliver, brother, I ought not to fail you. I will die of grief if another kill me not. Sir comrade, let us go and strike again!"

Count Roland has gone afield; he holds Durandal; he strikes like a vassal. . . . As the stag goes before the dogs, before Roland so flee the pagans. Said the Archbishop, "You do well enough. Such valour should a knight have, who bears arms and sits on a good horse. In the battle he should be strong and fierce, or otherwise he is not worth four pence; rather should he be monk in minster, so shall he pray daily for our sins." Roland replies, "Strike! Spare them not." At these words the French begin again, fierce as lions, knowing that they shall have no quarter.

King Marsile strikes valiantly on the Saracens' part; he kills amongst others Gerard of Roussillon. Roland, seeking to avenge them, strikes off the

king's right hand, and kills his son. A hundred thousand pagans are so affrighted that they take to flight, never to return. But, if Marsile has fled, there remains his uncle Marganice, with his black Ethiopians, large-nosed, broad-eared, more than fifty thousand. Seeing them ride against him, "Then said Roland, 'Here shall we receive martyrdom; now know I well that we have but little to live; but felon he who sells not himself dear before. Strike, lords, with your polished weapons! So challenge your deaths and your lives that sweet France be not shamed by us. When to this field shall come Charles my lord, and shall see such a chastening of the Saracens, that against one of us he shall find fifteen dead, he will not fail to bless us.'"

The fewness of the French gives pride and comfort to the Saracens. Marganice, striking Oliver from behind, pierces him through the chest with his spear, and thinks to have well avenged his people on such a knight alone. But Oliver, though feeling his death-wound, strikes with Hauteclair the golden helmet of Marganice, casting down its flowers and crystals, and cleaves his head down to the smaller teeth. "Pagan," he cries, "nor to wife nor lady whom thou hast seen shalt thou boast in the kingdom whence thou art, that thou hast taken from me one penny's worth, or done damage to me or to any." Flinging himself into the midst of the fray he strikes on all sides, dismembering the Saracens, throwing one dead upon the other. But he calls to Roland for aid, for to-day they must part.

Roland looks on Oliver; his face is colourless; the clear blood runs down his body and drops to the ground; for grief he faints on his horse. Oliver has so bled that his eyes have lost their strength; "nor far nor near can he see so clear as to recognise any mortal man. When his comrade meets him, he strikes him on his helmet gemmed with gold; he cleaves it in two to the nose-piece, but wounds him not in the head. At such a blow Roland

"looks on him, and asks him soft and gently, 'Sir comrade, have you done it willingly? This is Roland, who is wont to love you; so; in nowise had you defied me.' Said Oliver, 'Now I hear you speak, I see you not. The Lord God see you! I have struck you; now forgive me.' Roland replies, 'I am none the worse. I forgive it you here, and before God.' With these words one bends to the other; midst such love behold they are parted!

Oliver feels that death much anguishes him. Both his eyes turn in his head; he loses all his hearing and his sight. He descends from horseback, and lies down on the earth; hardly and loud he proclaims his sins, both his hands joined towards heaven. He prays God that he may give him paradise, and bless Charles and sweet France, and his comrade, Roland, above all men. His heart fails him—the count is dead."

Roland sees it, and laments over him full sweetly: "Sir comrade, ill were you so bold! Together we have been for years and days; thou didst me no wrong, nor did I wrong thee; when thou art dead, 'tis grief that I should live." He faints again on his horse; only his golden stirrups prevent his falling. When he comes back to himself he sees great damage. All the French are killed, save the Archbishop, and Walter of Luz, who has been fighting the Pagans on the mountains, and has seen all his men killed. He is now fleeing against his will through the valleys, calling on Roland: "Ha! gentle Count, valiant man, where art thou? Never knew I fear, where thou wert. I am that Walter who conquered Maelgut, nephew to Droo, the old and greyhaired; through vassalage I was wont to be thy favourite. My lance is broken, and pierced is my shield, and my hauberk unmailed and broken; a spear has struck me through the body; I shall die, but I have sold myself dear." Roland hears him, and returns to the fray. He kills twenty of the enemy, Walter six, the Archbishop five. A thousand Saracens come down

on foot, 40,000 on horseback. They dare no more approach, but from afar they throw lances, and spears, and darts. Walter falls the first; then Turpin is wounded in the head, pierced with four spears through the body, his horse killed under him. But quick he leaps up again from the earth, looks for Roland and runs to him: "I am not vanquished! a good vassal yields never alive." He draws his sword of burnished steel; in the great fray he strikes 1,000 blows and more. Charles said afterwards that he spared none; 400 were found around him, some wounded, some struck through, some with their heads cut off; so says the *Geste* and he who was in the field, the baron (St.) Giles, through whom God makes miracles, who made the charter in Laon minster."

"Count Roland is fighting bravely; but his body is all in sweat and very hot, his head pains him full sore. His temples are burst through his blowing of the horn, but yet he would fain know if Charles will come. He draws the ivory horn; feebly he sounds it. The emperor stood and listened. 'Sirs,' said he, 'full ill it goes with us. Roland my nephew this day fails us; I hear by his blowing that he will scarcely live more; who would be there, let him ride swiftly; sound your trumpets, as many as are in the host.' Sixty thousand are blown so loud that the mountains resound, and the valleys answer. The pagans hear it, they take it not for pleasantry." Four hundred of the best of them rush at once upon Roland. He sees them approach without fear; he and the Archbishop have both heard the music of Charles's host.

"Count Roland never loved a coward, nor a proud man, nor a man of ill parts, nor a knight that were not a good vassal." He called Archbishop Turpin: "Sir, you are a-foot, and I am on horseback; for love of you I will here take my stand; together will we have the good and the evil; I will not leave you for any fleshly man. We will yet to-day return this assault to the pagans. The blows of the best are those of

Durandal." Said the Archbishop: "Felon, who shall not strike well; Charles is coming, who will well avenge us."

The pagans say amongst themselves that Roland will never be vanquished by fleshly man. Once more they fling missiles at them; Roland's shield is fractured and pierced, his hauberk broken and unmailed; his horse, Veillantif, wounded in twenty places, and killed under him. The pagans now flee towards Spain; Roland, unhorsed, cannot pursue them. He goes to the aid of the Archbishop, unlaces his gilded helmet, takes off his light white hauberk, cuts off his tunic, and puts strips of it in his wounds. Pressing him then to his breast, softly he places him on the green grass; full gently he prays him: "Ha, gentle man, now give me my leave; our companions, whom we had so dear, now are they dead; we should not leave them. I wish to go and fetch them, and place them in order before you." Said the Archbishop: "Go and return; this field is yours, thank God, and mine." Roland returns; he goes all alone through the field. He searches the valleys, he searches the hills; he finds Berenger and Anseis and Samson, he finds old Gerard of Roussillon; one by one the baron has taken them; he has come with them all to the Archbishop; he has placed them in a row before his knees. The Archbishop cannot forbear weeping; lifting his hand he gives his blessing, then says, "Ill was it with you, barons; God the glorious have all your souls, and place them in Paradise in holy flowers! my own death so anguishes me, I shall not see the mighty emperor." Roland goes again to search the field, and brings back Oliver pressed against his bosom. He places him on a shield by the others; the Archbishop absolves and crosses them. Roland bursts out weeping, and falls fainting to the earth. Seeing him faint, the Archbishop felt such a woe as never before; he takes the horn, and goes to fetch water from a runnel in Roncevaux. Slowly he goes tottering; so feeble is he through loss of blood, that, before he

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has gone an acre, he falls on his face. Roland, recovering himself, rises to his feet. "He looks below, and he looks above; on the green grass, beyond his comrades, he sees the noble baron lying, the Archbishop . . . Dead is Turpin, Charles's warrior. By great battles, and by full fair sermons, against the paynim he was ever a champion; God grant him His holy blessing!

"Count Roland sees the Archbishop on the ground; out of his body he sees the bowels lying; over his brow his brain is bubbling out; on his chest he has crossed his white fair hands." Sorely Roland bewails him, according to the custom of his country. "Ha, gentle man, debonair knight, this day I commend thee to the glorious Heavenly One; never shall he man who will more willingly serve Him. Since the Apostles was never such a prophet to keep the law, and to draw men. May never your soul have suffering! May the gate of Paradise be open to him!"

Roland feels that death is near; by his ears his brain is escaping. He prays God for his peers, and then the angel Gabriel for himself. Taking the ivory horn in one hand, and Durandal in the other, he proceeds to Spainward, and ascends a hill, where under a goodly tree are four blocks of marble. Here again he faints away, when a Saracen, who feigned himself dead, seizes on him and his arms, exclaiming, "Vanquished is Charles's nephew! This sword will I carry to Arabia!" But Roland, feeling the sword drawn away, opens his eyes, and with the ivory horn, which he had not lost hold of, strikes him such a blow as crushes helmet and head at once, drives the eyes out of their sockets, and stretches the Saracen dead at his feet. "Coward," said he, "how wert thou so bold as to seize me by right or by wrong? None shall hear it but shall deem thee a fool." But he has split the thick of the ivory horn, and all the crystal and gold is falling from it. He perceives that he can see no more. He raises

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himself, however, on his feet; before him was a brown rock. He strikes ten blows on it with Durandal. The steel creaks, but does not break. "Ha, Durandal," he exclaims, "how bright thou art, and white! How thou shinest and flamest against the sun! Charles was in the vales of Maurienne when God of Heaven commanded him by His angel that he should give thee to a captain; wherefore the gentle king, the great, did gird thee on me. With this I conquered him Normandy and Brittany, with this I conquered him Poitou and Maine, with this I conquered him Burgundy and Lorraine, with this I conquered him Provence and Aquitaine, and Lombardy, and all Romania; with this I conquered him Bavaria and all Flanders, and Alemain and all Apulia, Constantinople, whereof he took the faith, and in Saxony, too, he did what he demanded; with this I conquered him Scotland, Wales, Ireland, and England, which he held for his chamber; conquered have I with this so many countries and lands which Charles holds, the white-bearded, that for this sword I have sorrow and grief. Better to die than that it remain among the paynim. May God the Father not let France be shamed thereby." . . .

"Roland feels that death is passing through him; from his head it descends upon his heart. Beneath a pine-tree he goes running, upon the green grass he lies down on his face, under him he puts his sword and the ivory horn; he turns his head toward the pagan folk. For this he does it . . . that Charles should say and all his people that the gentle count died a conqueror. He confesses his sins, minutely and often . . . he stretches his right glove toward God. . . . St. Gabriel took it from his hand. Upon his arm he held his head bowed; with clasped hands he is gone to his end. God sent His angel cherubim, and St. Michael of the danger; with them came St. Gabriel;

"they bear the Count's soul to Paradise." ¹

"Dead is Roland; God has his soul in heaven. The emperor reaches Roncevaux. There is no way nor path, nor of void earth yard nor footbreadth but Frenchman or pagan lies there. Charles cries, 'Where are you, fair nephew? Where is the Archbishop and Count Oliver, where is Gerin and his comrade Geraud, where is Otho and Count Berenger . . . What is become of Angelier the Gascon, Samson the duke, and Anseis the baron? Where is Gerard of Roussillon the old, the twelve peers whom I had left?' . . . He pulls his beard like a man in wrath; his knight barons weep . . . 20,000 fall fainting to the ground . . . they weep for their sons, their brothers, their nephews, their friends, their liege lords." Naymes advises the king to ride on and take revenge on the pagans. The sun stops in the heavens while the French pursue the fleeing Saracens, and drive them into the Ebro. King Marsile, however, has meanwhile reached Saragossa, from whence he had sent his letters to Baligant, the old amiral, who has survived Virgil and Homer, threatening to renounce his faith if not succoured. Baligant leaves Alexandria with a huge fleet, and at last, the day after the battle, reaches Saragossa, of which Marsile sends the keys out to him. Hearing what has happened, the amiral rides at once to meet the emperor.

After a night troubled with evil dreams, Charles had gone out alone in search of his nephew's body; for he had heard Roland say that, were he to die in a strange realm, he would pass beyond his men and his peers, and would have his head turned toward the foemen's country, and would thus end conqueringly (*conquerrantment*). As he

¹ The climax of interest is henceforth past. Yet so entirely, it would seem, for the middle-age reader or hearer, did the fate of the individual here merge into the larger story of the conflict between Christian and Mussulman, that two-thirds of the poem still remain. I shall, of course, abridge still more summarily henceforth.

goes, he finds the flowers of all the field red with the blood of "our barons," and cannot forbear weeping. Reaching two trees, he recognises Roland's blows on three blocks of marble, and sees his nephew lying on the green grass, a sight which makes him faint away. On his return to consciousness he begins "so softly" to lament him: "Friend Roland, God have mercy on thee! never man saw such a knight to wage and end great battles; my honour is turned to decline!" He tears out his hair by handfuls; 100,000 Franks weep to see him. "Friend Roland," he begins again, "I shall go to France; when I shall be at Laon in my room, from many realms shall come the stranger men; they will ask, 'Where is the Count-Captain?' I shall tell them that he is dead in Spain. With great sorrow afterwards shall I hold my realm; never shall be day that I do not weep and lament for this. Friend Roland, worthy man, fair youth, when I shall be at Aix in my chapel, my men shall come, they will ask me news; the marvellous and evil news shall I tell them: 'Dead is my nephew, who made me conquer so much!' Against me will rebel the Saxons, and Hungarians, and Bulgarians, and so many different nations, Romans, Apulians, and all they of Palermo, and those of Africa, and those of Califer. . . Ah, France, how deserted thou remainest! So great woe have I that fain would I not be."

They bury the dead with absolutions, incense, and great honour. The hearts of Roland and Oliver and Turpin are taken out, put in a cloth, and then into a white marble urn; their bodies are then put into stag-leather, well washed with spice and wine, and placed upon three carts, covered with a cloth. News now comes of the approach of the Saracen vanguard, and two messengers bring the amiral's message of defiance. The battle is now set in array. The French have ten corps of troops; of the Saracens the *geste* of the French reckons thirty corps. Before the amiral is borne

his dragon, and the standard of Ter-vagant and Mahound, and an image of Apollo the felon. Between the hosts there is no mountain, nor valley, nor hill, nor forest, nor wood; they see each other well amidst the plain. The battle is engaged. The French, greedy of revenge, do wonders, but not without loss; even Duke Naymes is wounded. Towards evening, beginning to despair of success, the amiral draws out his beard, white as flower on thorn, that wherever he goes he may be seen. The two sovereigns meet at last in single combat; Charles receives a blow on the head, which cleaves the helmet, and lays bare the bone; he staggers, he is near to falling, but the angel Gabriel calls to him, "Great king, what doest thou?" Recovering himself, with "the sword of France" he cleaves the amiral in twain with a deadly blow. The pagans now flee, and the French pursue. Great is the heat, and the dust rises; the pursuit lasts as far as Saragossa. Bramimond, Marsile's wife, has mounted to her tower, with the clerks and canons of her false law. When she sees the confusion of the Arabs, "Help us, Mahomed!" she exclaims; "our men are vanquished, the amiral is killed." On hearing her, Marsile turns to the wall, and dies of grief, giving his soul to the devils. The emperor breaks down the gates of Saragossa, and enters the city. A thousand French search the town, "the synagogues, and mahoundries" (*mahumeries*); with mallets of iron and wood they break the images; the bishops bless the waters, lead the pagans to baptism; if any oppose he is hung, or burnt, or killed; more than 100,000 are baptized, all but the queen, who is to be led a prisoner to sweet France, that she may be converted "by love."

Leaving a garrison in Saragossa, the emperor now departs. At Bordeaux, on the altar, he places the ivory horn full of gold—pilgrims see it who go there. To Blaye he takes his nephew and Oliver and the Archbishop, has them put in white tombs; they lie there in St. Roman's. He tarries not till he reaches Aix, and, as soon as arrived,

sends to summon "his judges," Bavarians and Saxons, Lorrainers, Germans, Burgundians, men of Poitou, Normans and Bretons, and those of France. Then begins the trial of Ganilo.

But as Charlemain enters the hall, "to him comes Alda, a fair damsel. Said she to the king, "Where is Roland the Captain, who swore to take me for his mate?" Charles has sorrow and grief for the saying; he weeps with his eyes, he pulls his white beard. "Sister, dear friend, thou askest me of a dead man! I will give thee a full weighty exchange for him; this is Louis. I cannot say more; he is my son, and will hold my marches." Alda answers: "This word is strange to me. May it not please God, nor His saints, nor His angels, that after Roland I remain alive!" She loses her colour, she falls at Charlemain's feet, she is dead for ever; God have mercy on her soul! The French barons weep and lament over her. Charles summons four countesses; they bear her to a convent of nuns, watch her the night till the daybreak, bury her fairly by an altar. "Full great honour the king has done her."

Ganilo the felon, in chains of iron, is before the palace, bound to a stake by serfs, who tie his hands with straps of stag-leather, and beat him with sticks. When the barons assemble, Charles has him brought before him. "Sir barons," says he, "judge me Ganilo. He was in the host with me as far as into Spain; he took from me 20,000 of my French, and my nephew whom ye shall never see, and Oliver the brave and the courteous; the twelve peers has he betrayed for money." Said Ganilo: "A felon be I if I hide it; Roland wronged me in gold and in goods, wherefore I sought his death and his ruin; but no treason do I grant." . . . "Before the king stood there Ganilo; a lusty body has he, a pleasant colour on his face; were he loyal, he had well resembled a baron." . . . He cried aloud: "For God's love, hearken to me, barons; I was in the host with the emperor, I served him by faith and by love. Roland, his nephew,

took me into his hatred, and so adjudged me to death and to grief. I was messenger to King Marsile; by my knowledge I got clear; I defied Roland the fighter, and Oliver, and all their comrades; Charles heard it, and his noble barons; I have avenged myself of them, but there is no treason." . . . There are assembled thirty of his barons, who all obey one, Pinabel of Sorence Castle, a good vassal, who can both speak and fight, who has undertaken to give the lie at the sword's point to any who should condemn Ganilo. The barons consult together; they decide upon praying the king to quit claim Ganilo for this once, that he may serve him faithfully hereafter. Roland is dead, and will be seen no more; it would be folly to fight! Only Thierry, brother of Lord Geoffrey of Anjou, holds out against this decision. It is, however, carried to Charlemain, whose visage darkens on receipt of it.

But Thierry comes forward, a knight spare of body and skin, black-haired, brown-eyed, not very tall, nor yet too short. Courteously he bids the emperor not trouble himself. Ganilo is a felon for having betrayed Roland—he has perjured himself against the king. Wherefore Thierry adjudges him to be hung, and his body burnt as a felon. If any of Ganilo's kin will give him the lie, he is ready to warrant his judgment. "Well said," reply the Franks. Pinabel takes up his kinsman's quarrel; glove are given; Ogier of Denmark proclaims the appeal of battle to be in due form. They fight in a meadow before Aix. After many a stout stroke, Pinabel offers to become Thierry's man "by love and by faith," if he will reconcile Ganilo to the king. Thierry replies by offering to reconcile Pinabel with Charlemain if he renounces the battle. Each refuses; Thierry receives at last a blow which cuts his face open, but replies to it by another which cleaves Pinabel's head in two and strikes him dead. The emperor comes and takes Thierry in his arms, wiping his face with his great sable furs. Pinabel's pledges, thirty of Ganilo's kinsmen,

are hung on a tree; Ganilo is sentenced to be torn to pieces by horses.

Bramimond is next baptized under the name of Juliana.

But at night, while the king is lying in bed in his vaulted chamber, St. Gabriel comes from God to bid him summon all his hosts, that he may go

into the land of Syria, to the succour of King Vivian, who is besieged by the pagans. Fain would the emperor not go.

"God!" said the king, "so painful is my life!" He weeps with his eyes; he pulls his white beard. Here ends the story (*geste*) that Turolde related."

THE FISHER FOLK OF THE SCOTTISH EAST COAST.

NEWHAVEN near Edinburgh, "Our Lady's Port of Grace," as it was originally named, is the most accessible of all fishing villages; and, although it is not the primitive place now that it was some thirty years ago, having been considerably spoiled in its picturesqueness by the encroachments of the modern architect, and the intrusion of summer pleasure-seekers, it is still unique as the abode of a peculiar people who keep up the social distinctiveness of the place. How Newhaven and similar fishing colonies originated there is no record; it is said, however, that this particular community was founded by King James III., who was extremely anxious to extend the industrial resources of his kingdom by the prosecution of the fisheries, and that to aid him in this design he brought over a colony of foreigners to practise and teach the art. Some fishing villages are known to have originated in the shipwreck of a foreign vessel, when the people saved from destruction squatted on the nearest shore and grew in the fulness of time into a community.

Newhaven is most celebrated for its "fish-wives," who were declared by King George IV. to be the handsomest women he had ever seen. The Newhaven fish-wife must not be confounded by those who are unacquainted in the locality with the squalid fish-hawkers of Dublin; nor, although they can use strong language occasionally, are they to be taken as examples of the *genus* peculiar to Billingsgate. The Newhaven

women are more like the *dames* of the market of Paris, though their glory of late years has been somewhat dulled. Before the railway era, the Newhaven fish-wife was a great fact, and could be met with in Edinburgh in her picturesque costume of short but voluminous and gaudy petticoats, shouting "Caller herrings!" or "Wh'all buy my caller cod?" with all the energy that a strong pair of lungs could supply. Then, in the evening, there entered the city the oyster wench, with her prolonged musical aria of "Wh'all o' caller ou?" But the spread of fishmongers' shops and the increase of oyster taverns is doing away with this picturesque branch of the business. Thirty years ago, nearly the whole of the fishermen of the Firth of Forth, in view of the Edinburgh market, made for Newhaven with their cargoes of white fish; and these, at that time, were all bought up by the women, who carried them on their backs to Edinburgh in creels, and then hawked them through the city. The sight of a bevy of fish-wives in the streets of the modern Athens, although comparatively rare, may still occasionally be enjoyed; but the railways have lightened their labours, and we do not now find them climbing the *whale bras* with a hundred weight, or two hundred weight, perhaps, of fish, to be sold in dribblets, for a few pence, all through Edinburgh.

The industry of fish-wives is proverbial, their chief maxim being, that "the woman that canna work for a man is no worth ane;" and, accordingly, they under-

take the task of disposing of the merchandize, and acting as Chancellor of the Exchequer. Their husbands have only to catch the fish, their labour being finished as soon as the boats touch the quay. The Newhaven fish-wife's mode of doing business is well known. She is always supposed to ask double or treble what she will take; and, on occasions of bargaining, she is sure, in allusion to the hazardous nature of the gudeman's occupation, to tell her customers that "fish are no fish the day, they're just men's lives." The style of higgling adopted when dealing with the fisher-folk, if attempted in other kinds of commerce, gives rise to the well-known Scottish reproach of "D'ye tak' me for a fish-wife?" The mode of doing business with a fish-wife is admirably illustrated in the "Antiquary." When Monkbarns bargains for "the bannock fluke" and "the cock paddle," Maggie Mucklebackit asks four and sixpence, and ends, after a little negotiation and much finesse, in accepting half a crown and a dram; the latter commodity being worth siller just then, in consequence of the stoppage of the distilleries.

The sketch of fisher-life in the "Antiquary" applies as well to the fisher-folk of to-day as to those of sixty years since. This is demonstrable at Newhaven; which, though fortunate in having a pier as a rendezvous for its boats, thus admitting of a vast saving of time and labour, is yet far behind inland villages in point of sanitary arrangements. There is here an everlasting scent of new tar, and a permanent smell of decaying fish, for the dainty visitors who go down to the village from Edinburgh to partake of the fish-dinners for which it is so celebrated. Up the narrow closes, redolent of "bark," we see hanging on the outside stairs the paraphernalia of the fishermen—his "properties," as an actor would call them—nets, bladders, lines, and oilskin unmentionables, with dozens of pairs of those particularly blue stockings that seem to be the universal wear of both mothers and maidens. On the stair itself sit, if it be seasonable weather, the wife and daughters, repairing the nets and bait-

ing the lines—gossiping, of course, with opposite neighbours, who are engaged in a precisely similar pursuit. In the flowing gutter which trickles down the centre of the old village, we have the young idea developing itself in plenty of noise, and adding another layer to the incrustation of dirt which it seems to be the sole business of these children to collect on their bodies. These juvenile fisher-folk have already learned from the mudlarks of the Thames the practice of sporting on the sands before the hotel windows, in the expectation of being rewarded with a few halfpence. "What's the use of asking for siller before they've gotten their denner!" we once heard one of these precocious youths say to another, who was proposing to solicit a bawbee from a party of strangers.

At Fisherrow, a few miles east from Newhaven, there is another fishing community, who also do business in Edinburgh. "The Fisher-row wives," in the pre-railway times, had a much longer walk with their fish than the Newhaven women; neither were they held in such esteem, the latter looking upon themselves as the salt of their profession. Dr. Carlyle, of Inveresk, whose memoirs were recently published, in writing of the Fisherrow women of his time, says:—"When the boats come in late to the harbour in the forenoon, so as to leave them no more than time to reach Edinburgh before dinner, it is not unusual for them to perform their journey of five miles by relays, three of them being employed in carrying one basket, and shifting it from one to another every hundred yards, by which means they have been known to arrive at the fishmarket in less than three quarters of an hour." It is a well-known fact, that three of these women went from Dunbar to Edinburgh, which is twenty-seven miles, with each of them a load of herrings on her back of 200lbs., in five hours. Fatiguing journeys with heavy loads of fish are now saved to the wives of both villages, as dealers attend the arrival of the boats, and buy up all the sea produce that is for sale. In former times there used to be great battles

between the men of Newhaven and the men of Fisherrow, principally about their rights to certain oyster-scalps. The Montagues and Capulets were not more deadly in their hatreds than these rival fishermen. Now the oyster-grounds are so well defined that battles upon that question are never fought.

The "pandore" oysters are principally obtained at Prestonpans; and at that village, and the neighbouring one of Cockenzie, the modern system, as we may call it, for Scotland, of selling the fish wholesale, may be seen in daily operation. When the boats arrive at the boat-shore, the wives of those engaged in the fishing are in readiness to obtain the fish. These are at once divided into lots, and put up to auction, the skipper's wife acting as the George Robins of the company, and the price obtained being divided among the crew, who are also, generally speaking, owners of the boat. Buyers, or their agents, from Edinburgh, Glasgow, Liverpool, Manchester, &c. are always ready to purchase, and in a few hours the scaly produce of the Firth of Forth is being whisked along the railway at the rate of twenty miles an hour. This system is a faint imitation of what is done in England, where the owners of fishing-smacks consign their produce to a wholesale agent at Billingsgate, who sells it by auction, in lots, to the retail dealers and costermongers.

Dredging for oysters is a principal part of the occupation of the Cockenzie fishermen. There are few lovers of this dainty mollusc who have not heard of the "whiskered pandores." The pandore oyster is so called because of being found in the neighbourhood of the salt-pans. It is a large fine-flavoured oyster, as good as any "native" that ever was brought to table, the Powldoodies of Burran not excepted. The men of Cockenzie derive a good portion of their annual income from the oyster traffic. The pursuit of the oyster, indeed, forms a phase of fisher life here as distinct as at Whitstable. The times for going out to dredge are at high tide and low tide. The boats used are the smaller-sized ones

employed in the white fishery. The dredge somewhat resembles in shape a common clasp-purse; it is formed of net-work, attached to a strong iron frame, which serves to keep the mouth of the instrument open, and acts also as a sinker, giving it a proper pressure as it travels along the oyster-beds. When the boat arrives over the oyster-scalps, the dredge is let down by a rope attached to the upper ring, and is worked by one man, except in cases where the boat has to be sailed swiftly, when two are employed. Of course, in the absence of wind, recourse is had to the oars. The tension upon the rope is the signal for hauling the dredge on board, when the entire contents are emptied into the boat, and the dredge returned to the water. These contents, not including the oysters, are of a most heterogeneous kind—stones, sea-weed, star-fish, young lobsters, crabs, actiniae—all of which are usually returned to the water, some of them being considered as the most fattening ground-bait for the cod-fish. The whelks, clams, mussels, and cockles, and occasionally the crabs, are used by the fishermen as bait for their white-fish lines. Once, in a conversation with a veteran dredger as to what strange things *might* come in the dredge, he replied, "Well, master, I don't know what sort o' curiosities we sometimes get; but I have seen gentlemen go out with us a-dreggin', and take away big baskets full o' things as was neither good for eating or looking at. The Lord knows what they did with them." During the whole time that this dredging is being carried on, the crew keep up a wild monotonous song, or rather chant, in which they believe much virtue to lie. They assert that it charms the oysters into the dredge. Talking is strictly forbidden, so that all the required conversation is carried on after the manner of the *recitative* of an opera or oratorio. An enthusiastic London *litterateur* and musician, being on a visit to Scotland, determined to carry back with him, among other natural curiosities, the words and music of the oyster-dredging song. But, after being exposed

to the piercing east wind for six hours, and jotting down the words and music of the dredgers, he found it all to end in nothing: the same words were never used, the notes were ever changing. The oyster-scalps are gone over by the men much in the way that a field is ploughed by an agricultural labourer, the boat going and returning until sufficient oysters are secured, or a shift is made to another bed.

The fishermen of Cockenzie and Pres-tonpan do not breed and nurse the oysters from the "spat," as the dredgers of Whitstable do. These latter never trust to the natural resources of their oyster-beds, but purchase at Colchester or elsewhere what is called "brood," being the spat in its second stage. This brood is carefully laid down in the oyster-beds off Whitstable, and is allowed to grow for three, or perhaps four years. The oysters in different stages are marked off by means of long poles, so that this shell-fish farm is divided into separate fields, each being in a particular stage of growth. At the time when the oysters are lifted for the London or other markets, they are measured by being thrown against a wire grating, and all those under a certain size are thrown again into the water to wait till their beards grow larger. Whitstable is as peculiar in its way as any of the Scottish fishing villages, and a great number of its inhabitants are related by marriage. A writer in a popular periodical gave the place the name of "the Happy Fishing Ground," principally from its inhabitants being banded, so to speak, into a kind of joint-stock company, where all share and share pretty much alike. The oysters are consigned to a London fish-salesman, and the proceeds, when received, are regularly divided among those entitled to partake. To give an idea of the business done, it may be stated that, in 1860, the Whitstable men took as much as 50,000*l.* for native oysters alone; which, after deducting the cost of the brood, would still leave a handsome profit.

Farther along on the Scottish east coast

is Dunbar, the seat of an important herring fishery—grown from a fishing village into a country town, in which a mixture of agricultural and fishing interests gives the place a somewhat heterogeneous aspect. Between Abbs Head and Berwick, however, is situated Eyemouth, a fishing-village pure and simple, with all that wonderful filth scattered about which is a sanitary peculiarity of such towns. The population of Eyemouth is in keeping with the outward appearance of the place. As a whole, they are rough, uncultivated, and more drunken in their habits than the fishermen of the neighbouring villages. Coldingham shore, for instance, is only three miles distant, and has a population of about one hundred fishermen, of a very respectable class, sober and well dressed, and "well to do." Not long since an outburst of what is called "revivalism" took place at Eyemouth, and seemed greatly to affect it. The change produced for a time was unmistakable. These rude, unlettered fishermen ceased to visit the public-houses, refrained from the use of oaths, and, instead, sang psalms and said prayers. But this wave of revivalism, which passed over other villages besides Eyemouth, has rolled away back, and, in some instances, left the people worse than it found them.

Crossing the Firth of Forth, the coast of Fife, from Burntisland to "the east neuk," will be found studded at intervals with quaint fishing-villages; and quaintest among the quaint is Buckhaven. Buckhaven, or, as it is locally named, Buckhyne, as seen from the sea, is a picturesque group of houses sown broadcast on a low cliff. Indeed, most fishing villages seem thrown together without any kind of plan. The local architects had never thought of building their villages in rows or streets; as the fisher folks themselves say, their houses are "a' heids and thraws," that is, set down here and there without regard to architectural arrangement. The origin of Buckhaven is rather obscure—it is supposed to have been founded by the crew of a Brabant vessel, wrecked on that

portion of the Fife coast in the reign of Philip the Second. The population are, like most of their class, a peculiar people, living entirely among themselves; and any stranger settling among them is viewed with such suspicion that years will often elapse before he is adopted as one of the community. The industrious fishermen of Buckhaven are moral, sober, and comparatively wealthy. Indeed, many of the Scottish fisher folk are what are called "warm" people; and there are not in our fishing villages such violent alternations of poverty and prosperity as are to be found in places devoted entirely to manufacturing industry. There is usually on the average of the year a steady income, the people seldom suffering from "a hunger and a burst," like weavers or other handicraftsmen.

As denoting the prosperous state of the people of Buckhaven, it may be stated that most of the families there are worth about 200*l.*; and, indeed, some of them are comparatively wealthy, having money in the bank, as well as a considerable capital in boats, nets, and lines. The men, being much from home, away at the herring fishery, or out at the deep-sea fishing, have no temptation to spend their earnings or waste their time in the tavern. Indeed, in some of the fishing villages, there is not even a single public-house. The Buckhaven men delight in their boats, which are mostly "Firth-built," i. e. built at Leith, on the Firth of Forth. Most of the boats used by the Scottish fishermen are built at that port—they are all constructed with overlapping planks; and the hull alone of a boat, thirty-eight feet in length, will cost a sum of 60*l.* Each boat, before it can be used for the herring or deep-sea fishery, must be equipped with a suit of nets and lines—say, a train of thirty-five nets at a cost of 4*l.* each, making a sum of 140*l.*; which, with the price of the hull, makes the cost 200*l.*, leaving the masts and sails, as well as inshore and deep-sea lines and many other *electeras*, to be provided for before the total cost can be summed up. The hundred boats which belong to the men of Buckhaven conse-

quently represent "considerable amount of capital." Each boat with its appurtenances has generally more than one owner—in other words, it is held in shares. This is rather advantageous than otherwise, as every vessel requires a crew of four men at any rate, so that each boat is usually manned by two or three of its owners—a pledge that it will be looked carefully after and not be exposed to needless danger. With all the youngers of a fishing village it is a point of ambition to obtain a share of a boat as soon as ever they can; so that they save hard from their allowances as extra hands, in order to attain as early as possible to the dignity of proprietorship. We look in vain, except at such wonderful places as Rochdale, to find manufacturing operatives in a similar financial position to these Buckhaven men; in fact, our fishermen have been practising the plan of co-operation for years without knowing it, and without making it known.

The retired Buckhaven fishermen can give a good deal of information about the money value of the fisheries. One, who was a young fellow five-and-twenty years ago, said the herring was a kind of lottery, but that, on an average of years, each boat would take annually something like a hundred crans—the produce, in all cases where the crew were part owners, after deducting a fifth part or so to keep up the boat, being equally divided. "When I was a younker, sir," said this person, "there was plenty o' herrin', an' we had a fine winter fishin' as well, an' sprats galore. As to white fish there was plenty five an' twenty year ago. Haddock now are scarce to be had; being an inshore fish, they've been a'ta'en in my opinion. Line fishin' was very profitable from 1830 to 1840. I've seen as many as a hunder thoosand fish o' ae kind or anither ta'en by the Buckyne boats in a week—that is, coontin inshore boats an' them awa at the Dogger Bank; the lot brocht four hunder pound; but all kinds o' fish are now so scarce, that it takes mair than dooble the labour to mak the same money that was made then."

Used-up gentlemen in search of sea-side sensations could scarcely do better than take a tour among the Scotch fisher-folks, in order to view the wonders of the fishing season, its curious industry, and the quaint people. There are scenes on the coast worthy of any sketch-book; there are also curious sea-side resorts that have not yet been vulgarized by hordes of summer visitors—infant fishing villages, set down by accident in the most romantic spots, occupied by hardy men and rosy women, who have children “paidling” in the water or building castles upon the sand. Such seascapes—for they look more like pictures than realities—may be witnessed from the deck of the steamboat on the way to Inverness or Ultima Thule. Looking from the steamer at one of these embryo communities, one may readily guess, from the fond attitude of the youthful pair who are leaning on the old boat, that another cottage will speedily require to be added to the two now existing; in a few years there will be another; in course of time the four will be eight, the eight sixteen; and lo! in a generation, there is built a large village, with its adult population gaining wealth by mining in the silvery quarries of the sea, and the youngsters splashing in the water or gathering sea-ware on the shore, whilst the old men will potter about the rocks setting lobster-pots, doing business in the crustaceous delicacies of the season. In good time the little community will have its annals of births, marriages, and deaths, its chronicles of storms, its records of disasters, and its glimpses of prosperity; and in two hundred years its origin may be lost, and the inhabitants of the original village represented by descendants in the sixth generation. At any rate, boats will increase, curers of herrings and merchants who buy fish will visit the village and circulate their money, and so the place will thrive. If a pier should be built, and a railway branch out to it, who knows but it may yet become a great port?

Steam-boat travelling has been in some degree superseded by the railway

carriage; but to tourists going to Inverness or Thurso the steamer has its attractions. It is preferable to the railroad when the time occupied in the journey is not an object. On board a fine steam-boat one has opportunities to study character, and there are always a few characters on board a coasting steam-vessel. And, going north from Edinburgh, the coast is interesting. The steamer may pass the Anster or Dunbar herring fleet. The passengers can see the Bell Rock lighthouse, and think of the old legend of the pirate who took away the floating bell, that had been erected by a pious abbot on the Inchcape Rock as a warning to mariners, and who was promptly punished for his sin by being shipwrecked on the very rock from which he had carried off the bell. After leaving Aberdeen, the Bùllers of Buchan are among the wonders of the shore, and the sea soughs at times with mournful cadence in the great caverns carved out by the waves on the precipitous coast, or it foams and lashes with majestic fury, seeking to add to its dominions. All the way, till the Old Man of Wick is descried, guarding the entrance of Pulteneytown harbour, there are ruined castles, and ancient spires, and curious towers perched on high sea-cliffs; or there are frowning hills and screaming sea-birds to add to the poetry of the scene. And along these storm-washed coasts there are wonders of nature that show the strong arm of the water, and mark out works that human ingenuity could never have achieved. Loch Katrine and the pass of Glencoe have been the fashion ever since Sir Walter Scott *made* Scotland; but there are other places beside these that are worth visiting.

The supposed scene of Sir Walter Scott's novel of “*The Antiquary*,” on the coast of Forfarshire, presents a conjunction of scenic and industrial features which commends it to notice. At such a place as Auchmithie, which is distant a few miles from Arbroath, there is often some cause for excitement; and a real storm or a real drowning is something vastly different from the shipwreck in

the drama of "The Tempest," or the death of the Colleen Bawn. The beetling cliffs barricading the sea from the land may be traversed by the tourist to the music of the everlasting waves, the dashing of which only makes the deep solitude more solemn; the sea-gull sweeps around with its shrill cry, and playful whales gambol in the placid waters. The visitor may explore some of the vast caves which only a few years ago were the nightly refuge of the smuggler. Brandy Cove and Gaylet Pot are worth inspection, and inspire a mingled feeling of terror and grandeur. Fisher-life may be witnessed here in all its unvarnished simplicity. The daily routine is simple and unvarying; year by year, and all the year round, it changes only from one branch of the fishery to another. The season, of course, brings about its joys and sorrows—sad deaths, which overshadow the village with gloom; or marriages, when the people may venture to hold some simple *fête*, but only to send them back with renewed vigour to their occupations. Time, as it sweeps over them, only indicates a period when the deep sea hand-lines must be laid aside for the herring drift, or when the men must take a toilsome journey in search of bait for their lines. Their scene of labour is on the sea, ever on the sea; and, trusting themselves on the mighty waters, they pursue their simple craft with persevering industry, never heeding that they are scorched by the suns of summer or benumbed by the frosts of winter.

There is, of course, an appropriate season for the capture of each particular kind of fish. There are days when the men fish inshore for haddocks; and there are times when, with their frail vessels, the fishermen sail long distances to procure larger fish in the deep seas, and when they must remain in their open boats for a few days and nights. But the El-dorado of all the coast tribe is "the herring." This abounding and delightful fish, which can be taken at one place or another from January to December, yields a six weeks' fishing in the autumn of the year, to which all the

fisher-folk look forward with hope, as a period of money-making, and which, so far as the young people are concerned, is generally expected to end, like the third volume of a love story, in matrimony. Many of the fishermen go a long distance from home to prosecute the herring fishery. The Newhaven men, as a rule, go to Dunbar; men on the Aberdeen coast will repair to Peterhead; and, while a few men repair annually to the Lewes, hundreds from all parts of the coast push on to Wick in Caithness-shire, which is to herring what Manchester is to cotton or Birmingham is to brass. Fortunes have been made at the herring fishery; but of late years the fishery has fluctuated so much that it is difficult to say what have been the results to individual fishermen.

If we assume the average "take" of each boat over the season; as being of the value of 100*l*. it will rather be over than under the mark. There are seldom less than a thousand boats congregated at Wick in the herring season, and, to "man" these effectually, "hired men" are required. These are got from the Hebrides and other places, and they are paid a wage by the parties who own the boat. It is said that the British herring fishery is now on the decline, and that to take as many fish as were taken twenty-five years ago requires about five times the quantity of netting that was then in use. It will be a serious calamity for Scotland if there be any truth in the recently published speculations as to the over-fishing of the herring.

It is, no doubt, considered by some to be an easy way to wealth to prosecute the herring or white fisheries, and secure a harvest grown on a farm where there is no rent payable, the seed of which is sown in bountiful plenty by nature, which requires no manure to force it to maturity, and no wages for its cultivation. But it is not all gold that glitters. There are risks of life and property connected with the fishery which are unknown to the industries that are followed on the dry land. There are times when there is weeping and wailing along the shore. The seasons are

not always suffused in sunshine, nor is the sea always calm. The boats go out in the peaceful afternoon, and the sun, gilding their brown sails, may sink in golden beauty in its western home of rosy-hued clouds; but anon the wind will freshen, and the storm rise apace. The black speck on the distant horizon, unheeded at first, has grown into a series of fast-flying clouds, and the wind which a little ago was but a mere capful soon begins to rage and roar, the waves are tossed into a wilder and wilder velocity, and, in a few hours, a great storm is agitating the bosom of the wondrous deep. The fishermen become alarmed; hasty preparations are made to return, nets are hauled on board, sails are set and dashed about by the pitiless winds, forcing the boats to seek the nearest haven. Soon the hurricane bursts in relentless fury; the fleet of fishing-boats toss wildly on the maddening waves; gloomy clouds spread like a pall over the scene; while on the coast the waters break with ravening fury, and many a strong-built boat is dashed to atoms on the iron rocks, and many a gallant soul spent in death, within a span of the firm-set earth. Morning, so eagerly prayed for by the disconsolate ones who have been watching from the land, at length slowly dawns, and reveals a shore covered with the fragments of wood and clothes which too surely tell the disasters of the night. The *débris* of boats and nets lie scattered on the rocks and boulders, dumb talebearers that bring sorrow to many a household. Gaunt women,

“Wives and mitthers maist despairing,”

with questioning eyes, rush wildly about, piercing with their looks the hidden secrets of the waters; and here and there a manly form, grim and stark and cold, cold in the icy embrace of death, his brows bound with wreaths of matted sea-weed, gives silent token of the majesty of the storm.

Taking a jump from Auchmithie, it is desirable to pause a moment at the small fishing village of Findon, in the parish of Banchory Devenick, in Kincar-

dineshire, in order to say a few words about a branch of industry in connexion with the fisheries that is peculiar to Scotland. Yarmouth is famed for its “bloaters,” a preparation of herrings slightly smoked, well known over England; and in Scotland there is that unparagoned dainty, the “Finnan haddock,” the best accompaniment that can be got to the other substantial components of a Scottish breakfast. Indeed, the Finnan haddie is celebrated as a breakfast luxury all over the world, although it is so delicate in its flavour, and requires such nicety in the cure, that it cannot be enjoyed in perfection at any great distance from the sea-coast. George the Fourth, who had certainly, whatever may have been his other virtues, a kingly genius in the matter of relishes for the palate (does not the world owe to him the discovery of the exquisite propriety of the sequence of port wine after cheese?), used to have genuine Finnan haddocks always on his breakfast-table, selected at Aberdeen and sent express by coach every day for his Majesty’s use. The fame of this particular fish, and the consequent great demand, has, however, now rendered it necessary to “manufacture” it. In fact, to meet the demand is pretty nearly impossible; for, the haddock being a very accessible fish, frequenting the shallow waters of the coast, it has been so industriously preyed upon by the fishermen that it has become scarce. “Where are the haddocks?” is a question that is now being frequently asked by those interested in the fisheries. This scarcity, too, has led to a little bit of fraud, viz. the manufacture of codlings (young of the codfish) into Finnan haddocks. Great houses of brick have now been erected at various places on the Moray Firth and elsewhere; and in these immense quantities of haddocks and other fish are smoked for the market by means of burning billets of green wood. Formerly the fisher folk used to smoke a few haddocks in their cottages over their peat fires for family use. The fame of these soon spread beyond the locality where they were manipulated, till there gradually came to be a consi-

derable demand for them. The guard of the Aberdeen and Edinburgh coach was in the habit of bringing a few bunches to his friends in the latter city; and, these being distributed in various parts of the town, a taste for the delicacy was soon formed, and a dealer in groceries, on hearing of their fame, persuaded the guard to bring him some bunches for sale. The trade grew, till it required a collection to be made in the fishing districts in order to get together the requisite quantity; so that what was once a mere local effort has now become a prominent branch of the fish trade. But it is seldom that the home-smoked fish can be obtained, with its delicate flavour of peat-reek. The manufactured Finnan or yellow haddie, smoked in a huge warehouse, is more plentiful, of course, but it has lost the old relish. It is pleasant to see the clean fireside and the clear peat fire in the comfortably furnished cottage, with the children sitting round the ingle on the long winter evenings, listening to the tales and traditions of the coast, the fish hanging all over the reeking peats, acquiring the while that delicate yellow tinge so refreshing to the eyes of all lovers of a choice dish.

Foot Dee, or "Fittie," as it is locally called, is a quaint suburb of Aberdeen, figuring not a little, and always with a kind of comic quaintness, in the traditions of that northern city, and in the stories which the inhabitants tell of each other. They tell there of one Aberdeen man, who, being in London for the first time, and visiting St. Paul's, was surprised by his astonishment at its dimensions into an unusual burst of candour. "My stars!" he said, "this maks a perfect feel [fool] o' the kirk o' Fittie." Part of the quaint interest thus attached to this particular suburb by the Aberdonians themselves arises from its containing a little colony or nest of fisher folk, of immemorial antiquity. There are about a hundred families living in Fittie, or Foot Dee, Square, close to the sea, where the Dee has its mouth. This community, like all others made up of the fishing folk, is a peculiar one, and

differs of course from those of other working people in its neighbourhood. In many things the Foot Dee people are like the gipsies. They rarely marry, except within their own class; and those born in a community of fishers seldom leave it, and almost never engage in any other avocation than that of their fathers. The square of houses at Foot Dee is peculiarly constructed. There are neither doors nor windows in the outside walls, although these look to all the points of the compass; and none live within the square but the fishermen and their families, so that they are as completely isolated and secluded from public gaze as are a regiment of soldiers within the dead walls of a barrack. The Fittie men seem poorer than the generality of their brethren. They purchase the crazy old boats of other fishermen, and with these, except in very fine weather, they dare not venture very far from "the seething harbour bar;" and, the moment they come home with a quantity of fish, the men consider their labours over, the duty of turning the fish into cash devolving, as in all other fishing communities, on the women. The young girls, or "queans," as they are called in Fittie, carry the fish to market, and the women sit there and sell them.

As a class, the fishers are intensely superstitious. For instance, whilst standing or walking they don't like to be numbered. Rude boys will sometimes annoy them by shouting:

"Anc, twa, three;
What a lot of fisher nannies I see!"

It is also considered very offensive to ask fisher people, whilst on their way to their boats, where they are going to-day; and they do not like to see, considering it unlucky, the impression of a very flat foot upon the sand; neither can they go to work if on leaving their homes in the morning a pig should cross their path. This is considered a particularly unlucky omen, and at once drives them home. Before a storm, it is usually thought, there is some kind of warning vouchsafed to them; they see, in their mind's eye doubtless, a comrade wafted

homeward in a sheet of flame, or the wraith of some one beckons them with solemn gesture landward, as if saying, "Go not upon the waters." When an accident happens from an open boat, and any person is drowned, that boat is never again used, but is laid up high and dry, and allowed to rot away—rather a costly superstition. Then, again, some fisher people perform a kind of "rite" before going to the herring fishery, in drinking to a "white lug"—that is, that, when they "pree" or examine a corner or lug of their nets, they may find it glitter with the silvery sheen of the fish, a sure sign of a miraculous draught.

It is well worth while, by way of variety, to see the fishing population of the various towns on the Moray Firth. Taking the south side as the best point of advantage, it may be safely said that from Gamrie to Port Gordon there may be found many studies of character, and bits of land, or rather seascape, that cannot be found anywhere else. Portsoy, Cullen, Porteousy, Buckie, Port Gordon, are every one of them places where all the specialities of fisher-life may be studied. Buckie, from its size, may be named as a kind of metropolis among these ports; and it differs from some of them inasmuch as it contains, in addition to its fisher folk, a mercantile population as well. The town is divided and subdivided by means of its natural situation. There is Buckie east the burn, New Buckie, Nether Buckie, Buckie below the brae, Buckie above the brae, and, of course, Buckie west the burn. A curious system of "nicknames" prevails among the fisher people, and most notably among those on the Moray Firth, and in some of the Scottish weaving villages as well. In all communications with the people their "to" (i.e. additional), or, as the local pronunciation has it, "tee" names, must be used. At a public dinner a few months ago several of the Buckie fishermen were present; and it was noticeable that the gentlemen of the press were careful, in their reports of the proceedings, to couple with the real names of the men the appellations by which they were

best known—as "Mr. Peter Cowie, 'langlegs,' proposed the health, &c." So, upon all occasions of registering births, marriages, or deaths, the "tee" name must be recorded. If a fisherman be summoned to answer in a court of justice, he is called not only by his proper name, but by his nickname as well. In many of the fishing villages, where the population is only a few hundreds, there will not, perhaps, be half a dozen different surnames, and the whole of the inhabitants therefore will be related "through-ither," as such intermixture is called in Scotland. The variety of nicknames, therefore, is wonderful, but necessary in order to the identification of the different members of the few families who inhabit the fishing villages. The different divisions of Buckie, for instance, are inhabited by different clans; on the west side of the river or burn there are none but Reids and Stewarts, while on the east side we have only Cowies and Murrays. Cowie is a very common name on the shores of the Moray Firth; at Whitehills, and other villages, there are many bearing that surname, and, to distinguish one from the other, such nicknames as Shavie, Pinchie, Howdie, Doddies, &c. are employed. In some families the nickname has come to be as hereditary as the surname; and when Shavie, senior, crosses "that bourne," &c. Shavie, junior, will still perpetuate the family tee name. All kinds of circumstances are indicated by these names—personal blemishes, peculiarities of manner, &c. There is, in consequence, Gley'd Sandy Cowie, and Big gley'd Sandy Cowie; there is Souples, Goup-the-lift, Lang-nose, Brandy, Stottie, Hawkie, &c. Every name in Church or State is represented—kings, barons, bishops, doctors, parsons, and deacons; and others, in countless variety, that have neither rhyme nor reason to account for them.

Crossing the Moray Firth to Wick, those interested in the industrial features of the country, may witness the greatest herring-fishery in the world, where, every season, the waters are covered by a fleet of twelve hundred boats. At Wick, the art of conducting

fish commerce may be studied to the greatest advantage. The native population is augmented during the herring season by some four thousand persons, who come to hire themselves for the six weeks of the fishery to the resident boat-owners. Then there is also gathered there a countless number of females who officiate as "gutters," and who may be seen from daybreak to dusk actively engaged at the gutting-troughs. Vast quantities of herrings are taken annually off the coast of Caithness, and the capture and curing of these fish forms the staple trade of Wick. During July and August the harbour is filled with the boats and various craft, with salt from Liverpool, or barrel-staves from Norway, all of them in hot haste to get delivered, that they may go off with herrings to the Elbe or the Baltic. The owners of boats at Wick engage to fish for particular curers, who have curing-stands there; and the bargain made is usually that the boat shall deliver green fish to the extent of two hundred crans (if so many herrings be caught), at so much per cran, with a ready-money bounty to each boat besides. The fishery for herrings, as conducted at Wick, is a good deal in the nature of a lottery; there are always people anxious to have a boat of their own, and curers ready to find the money, thus involving the ambitious boat-owner in a liability which must be worked off before he can be free to fish for a curer of his own selection. Sometimes the boat may be wrecked before it is paid for, or the seasons following its purchase may be so unproductive as to prevent the owner earning more money than will pay his hired men. Fisher-life is developed from the individual to the general at Wick. The army of fishermen and the fleet of boats are all concentrated on one object—the herring shoal. Murdoch and Donald from the Isle of Skye, men half farmers and half fishermen, have come over to hire themselves for the fishery, and their sisters and daughters for the gutting. If the fleet has been lucky, and a marvellous draught takes place throughout the night, the town rises into a mad excitement, and during the whole of the

next day the people rush about in a kind of joyful frenzy. The quays are dripping with salt-water, and the weird-like gutters eviscerate in desperation, as basketful after basketful of the glittering treasures are poured into the gutting-trough. It takes the curers' agent all his time to jot down the arrivals from the different boats, so fast do the gratified fishermen pour them into the great receptacle. Even at dusk all is not over on the occasion of a great catch, and extemporised torches throw a lurid glare over the scene, and admit of the women gutting far into the night. There is usually one night in each season in which the fishing culminates into a great catch, and the joy of all concerned is in accordance with the previous despondency. The gutters are a study of themselves. When the labours of the day commence, and the trig lasses, who have been waiting the arrival of the boats, begin to disrobe, and dress for their part in the industrial drama, it looks as if the *corps* were individually "making up," to use a theatrical phrase, for the witches in the tragedy of "Macbeth." It is necessary for these young women to put on such attire as will not spoil, so that they change themselves into Calais fish-women, and at once become—

"Withered, grotesque, immeasurably old,
And shrill and fierce in accent."

They perform their labours with great rapidity, and are paid according to the work they perform, so that in a space of a few minutes a "gang" of three will fill a barrel with eight hundred fish.

The late Mr. Wilson gives some information about the curing of herrings at Wick:—"The cure of herrings is an object of such paramount importance to the town and neighbourhood, that when an unusual *take* occurs, and delicate female hands are wanting for the work, a kind of requisition is sent through the town, even to the most respectable inhabitants, to allow their domestics to attend as gutters for a day or two; and in hiring servants it is by no means unusual for the latter to stipulate for *leave to gut*

"during a certain number of days, as a
 "perquisite beyond their usual termly
 "wages. To prevent indolence or idleness,
 "all these gutters are paid by piece-work—that is, so much a cran or
 "barrel after the fish are packed. At
 "the rate of 4*d.* per barrel, each gutter,
 "according to her skill and activity,
 "may make from four to seven shillings
 "a day; and in former times, when so
 "high as a shilling a barrel was sometimes
 "allowed during a press of work
 "and scarcity of hands, the gains were
 "actually enormous. An expert and
 "practised company of three can make
 "up among them sixty-three barrels in
 "a day, or twenty-one barrels each;
 "so that, in the glorious times alluded
 "to, a gutter might have kept her gig,
 "and driven to the scene of action
 "daily."

As will be inferred from these details,
 the fisher folk as a body are not literary
 or intellectual. They have few books,
 and many of them never look at a newspaper.
 It is not surprising, therefore,
 that only one author has arisen among
 the fisher people—Thomas Mathers,
 fisherman, Monance, Fifeshire. We
 have had many poets from the mechanic
 class, and even the colliers from the
 deep caverns of the earth have begun
 to sing. Mathers's volume is entitled,
 "Musings in Verse by Sea and Shore."
 The following lines will at once explain

the author's ambition and exhibit his
 style:—

"I crave not the harp o' a Burns sae strong,
 Nor the lyre o' a sweet Tannahill;
 For those are the poets unrivalled in song,
 Can melt every heart, and inspire every
 tongue,
 Frae the prince to the peasant at will.

"To weep wi' the wretched, the hapless to
 mourn,
 To glow wi' the guid and the brave;
 To cheer the lone pilgrim, faint and forlorn,
 Wi' breathins that kindle and language that
 burn,
 Is the wealth and the world I would crave."

It is certain that we know less about
 the natural and economic history of the
 fishes of the sea than we do about most
 other industrial pursuits. Abroad they
 manage these things better. France is
 cultivating the sea as we do the land,
 and with great success; and the Dutch
 people, who have been celebrated in this
 branch of industry since the period when
 Amsterdam was founded on herring
 bones, "have an occasional public exhibition
 of fishing boats, nets, and other
 implements used in their fisheries, with
 the view of making known throughout
 Holland all important inventions or
 improvements which bear on the question
 of fishing industry." Why Great
 Britain should be behind other nations in
 any branch of commerce is a problem that
 it is not at present our duty to solve.

J. G. B.

TO VIRGIL.

Thou sleepest, Virgil, where the shores and seas
 Reflect a mutual smile; above thy tomb
 The air is glory, and the gale perfume,
 And softly voiced with sound of yellow bees.
 This was thy home, thy common prospects these;
 And hence the light, through thy pure eyes refined,
 That lit up every region of thy mind,
 And taught thy verse the listening world to please:
 That sacred verse, whose sweet immortal charm
 Still dignifies the round of rural toil,
 Still consecrates the harvest-laden soil
 And pastoral downs of many a Saxon farm;
 Till half we think that ancient Faunus reigns,
 And Pan and Ceres haunt our woods and plains.

H. C. G. M.

THE PRESIDENCY OF THE UNITED STATES.

BY JOSEPH LEMUEL CHESTER.

As the recognised head of a nation counting its population by millions, and occupying a territory of such magnificent proportions, it cannot be denied that the President of the United States takes high political rank among the supreme authorities of the civilized world. His position, however, in its powers and limitations, its privileges and its responsibilities, presents many strange anomalies, and more than one real or seeming paradox. Neither king nor emperor, his sovereignty combines the attributes of both, while the constitutional restraints that hedge him in on every side render that sovereignty, in reality, the merest semblance of the thing itself. No extraordinary *coup d'état* to which he might resort—no arbitrary edict, in the nature of an imperial *ukase*, he might issue—would be recognised or could stand an instant, either against the established laws they violated, or the indignant and determined expression of the popular will; and yet, so long as he does not overstep the limits prescribed by the national compact, or infringe the statutes by which its provisions are defined, no ruler living sways his sceptre more royally, or finds his authority more readily acknowledged or more sacredly respected.

Attaining this high dignity, not through any accident of birth, or other genealogical right, but simply by means of the free suffrages of a heterogeneous people, expressed in what is known as the "popular vote," it would naturally be presumed that whoever was thus distinguished by the mass of his countrymen had previously won the right to such distinction, by patriotic services of an extraordinary character, either in the field, the senate, or the ranks of diplomacy. If the natural and reasonable rule, that "the labourer is worthy of his hire," were always recognised and

obeyed, such might be the case; but, unfortunately, the truthfulness of another axiom, that "republics are ungrateful," has never elsewhere received such repeated demonstrations as in the political history of the United States of America.

It may be very safely asserted that, with the single exception of Washington, that country has never had a chief magistrate whose right to the dignity was acknowledged by, and whose administration was satisfactory to, the great mass, or even any considerable majority, of the people. Washington alone received the unanimous vote of the presidential electors. Monroe nominally took nearly equal rank in this respect, receiving the entire electoral vote, with the single exception of that of one State; but his apparent popularity was accidental, rather than based on the universal esteem of the people. A change of only three votes in the Electoral College would have made Jefferson President, in 1797, instead of the elder Adams. In 1801, the vote for Jefferson and Burr was a tie, and the former was finally elected only after thirty-five ballots by the House of Representatives.

The very machinery of a presidential election, so little comprehended abroad, often defeats the precise object it was nominally designed to secure. A candidate may receive a "plurality" of the votes cast throughout the country, and, consequently, in the electoral college—thus being indorsed as the choice of the people themselves—and yet find himself eventually in a practical minority, and compelled to yield to a competitor whom the popular voice has repudiated. Strange as this may seem, it is, nevertheless, strictly true.

In the year 1824, the electoral vote stood as follows: for General Jackson,

ninety-nine; Mr. J. Q. Adams, eighty-four; Mr. Crawford, forty-one; and Mr. Clay, thirty-seven—clearly indicating that the largest portion of the voting population desired the election of the first-named candidate, in preference to that of either of the others; and, according to the first principles and strict spirit of democratic rules and doctrines, this expression of the will of the greater number should have been respected in the final decision. Yet, because General Jackson's plurality was not an absolute majority over all the other votes combined, that decision was wrested from the hands of the Electoral College, and transferred to the House of Representatives—a body composed of men elected chiefly with regard to local state interests, and without any reference to the presidential contest—where, by a constitutional provision, such issues are to be determined by the votes of entire States, and not of their individual delegates, and Mr. Adams was duly chosen President, although the number of votes cast by the people for General Jackson exceeded, by more than one-sixth, that polled for his successful opponent. As a further proof that General Jackson was undoubtedly the real favourite of the people on this occasion, and that their intentions were frustrated, it is proper to add that, four years later, when the next presidential election took place, he received no less than one hundred and seventy-eight electoral votes; while the number cast for Mr. Adams, who was again his antagonist, amounted to only eighty-three.

It will be seen, therefore, that however great his claims to the honour, and however sincere the determination of the greater number of the people to confer it upon him, the competitor in the presidential race who primarily outstrips his opponents has no guarantee of final success, but is at the mercy of the ill-contrived and needlessly complicated elective system—one of the defects of the present Constitution, which even sad experience has failed to induce the American Legislature or the people to correct.

Again, owing to some strange idiosyncrasy in public sentiment or action, those universally recognised as the most eminent and deserving among American statesmen have been coldly or carelessly rejected by the people *en masse*, although individually acknowledged to be not only worthy of but clearly entitled to this high distinction. Henry Clay, Daniel Webster, and others who might be named, went down to their graves without reaching any relatively higher position than that of Cabinet Minister, under men infinitely their inferiors in every respect, but who had accidentally leaped, at one bound, almost from the ranks of the commonality into the supreme chair of State. On the other hand, the successful presidential aspirants have sometimes been men possessing no legitimate claim to the suffrages of the people, on the score of either character, abilities, or public services, and whose elevation has been alike astounding to themselves and the country at large.

As an evidence of the strange and extreme uncertainty attending a presidential contest, a case in point may be adduced. In the year 1852, the state of public feeling was such that the then Democratic party was greatly at a loss for a candidate at the ensuing election. Without entering into details, it is enough to say that it regarded its chance of success as hopeless; but, as it could not retire altogether from the field, and as its most prominent members declined jeopardizing their future prospects by risking what appeared to be inevitable defeat, the nominating convention confined itself to selecting some individual who would be contented with the mere glory of having been a candidate, and the right to transmit to his posterity the somewhat questionable record that he had once "run for the Presidency." In other words, it sought for a man whom the party was willing to sacrifice, and who was equally willing to be sacrificed. After considerable difficulty he was discovered in the person of Mr. Pierce. This gentleman had been, indeed, a member of the Upper House of Congress and also one of the numerous military

generals created during the Mexican war; but so utter a stranger was he to the people of the country, that even his very name was unknown, and immediately upon the announcement of his nomination, the entire press, from Maine to Texas, simultaneously and spontaneously headed its editorial articles on the subject with the extraordinary question, "Who is Frank Pierce?" Even the Democratic party itself apparently enjoyed the standing joke as much as its opponents, and the whole nation passed the interval between the nominations and the election in the quiet expectation that Mr. Pierce's vote in the Electoral College would be scarcely worth counting. And yet, owing either to an unpardonable apathy on the part of the Opposition, or to the tricky machinery before mentioned—perhaps to both—Mr. Pierce woke up one morning, a few weeks later, and found himself the President-elect of the United States, having triumphed over no less a personage in his antagonist than the veteran General Scott, who had grown grey in the service of the now ungrateful Republic.¹

There is little doubt that the present President—Mr. Lincoln—reached his position in much the same manner, and owing to somewhat similar causes. The Republican party, so called, at that early stage of its existence, had little confidence in its strength, and was unwilling to risk its best men in the uncertain contest. Mr. Seward, confessedly occupying the most prominent position in its ranks, refused to immolate himself, as did others of little less notoriety. Had that gentleman then accepted the Republican nomination, the probability is that we should have witnessed none of the scenes of the past few months; for the Democratic party, North and South, recognising in him "a foeman worthy of its steel," would, doubtless,

¹ No offence is here intended towards General Pierce, or his old party. That gentleman really made a very good President—as modern Presidents go. The circumstances related were, however, so *apropos* to the point they illustrate, that their introduction could not well be avoided.

have remained intact, and presented an unbroken front to its opponents, instead of dividing, as it did, on comparatively trivial questions—which was, unquestionably, the real and sole cause of its defeat, and led to the fatal consequences that immediately ensued.

Still, another item in the chapter of accidents must not be overlooked. The American people, in the excitement of their presidential campaigns—at least, in more modern times—seem to have strangely ignored the possibility that the popular idol of the day might be unexpectedly compelled to yield to a Power more absolute even than that which raised him into his temporary greatness. The king never dies—but a president may. Taylor lived but little more than a year after his inauguration, and Harrison only a single month. In both instances, the Vice-Presidents, who, *ex officio*, assumed the superior functions, would certainly never have been selected by the people themselves for the chief magistracy. If they, too, had been stricken from their seats, and, subsequently, others in the line of succession as established by the Constitution, the presidential *toga* might have descended consecutively upon the shoulders of individuals still more incompetent (although members of Congress), and who, under no circumstances, would have been originally elected to this high office and intrusted with its responsibilities.¹ Whether it has hitherto been the result of mere carelessness on the part of party leaders, or has arisen from the paucity of eligible men in their ranks, or, still again, from the indisposition of the latter to accept a secondary position, with a pitiful salary, at the expense of their other fortunes, it is certain that the policy of placing wholly impracticable men where the accident of a day may clothe them with the supreme power is

¹ Mr. King, who was elected Vice-President in 1852, died six weeks after the commencement of his official term, never having entered upon its duties, which were performed during that Administration by a presiding officer elected by the Senate from their own number, who would have become President in case of the death of the then incumbent of that office.

a bad one, and has so far worked disastrously.

Singularly enough, in a country that has always based its greatness on its peaceful policy and avocations, and whose standing army had never exceeded fifteen thousand men, the popular sentiment has ever been affected more strongly by the military renown of a presidential candidate than by the highest attributes of statesmanship he might possess. While fourteen of the sixteen Presidents have been educated originally to the legal profession, it is certain that the most thoroughly successful competitors for that office have hitherto invariably been men holding the rank of General—*par exemple*, Washington, Jackson, Harrison, Taylor, and even Pierce. It may be safely assumed that, owing to recent events, the military element has become and will continue more formidable than ever, and be absolutely dominant in all political matters in the United States for, at least, some years to come.

The political, or official, American year may be said to commence and terminate at twelve o'clock, noon, on the fourth day of March. On the biennial recurrence of that day, and precisely at that hour, the current Congress expires, by Constitutional limitation, and also, at the end of every fourth year, the current Administration ceases to exist.¹

The first act of the President-elect is to take the oath of office; the simple ceremonies attending which are always now performed in the most public manner, and constitute what is called his Inauguration. These inaugural cere-

monies have always taken place at the National Capitol, except in the cases of Washington and the elder Adams, when they occurred respectively at New York and Philadelphia. Mr. Jefferson was the first President inaugurated at Washington—on the 4th of March, 1801. In earlier times there was even less formality and excitement attending these occasions than at present—the President, simply attended, going quietly to one of the Halls of Congress, and taking the oath in the presence of that body and the few spectators who could be accommodated in the Chamber. Mr. Monroe's inauguration, in 1817, was the first that took place more publicly, and the custom then established has ever since prevailed; except in the case of Mr. J. Q. Adams, in 1825, when the ceremonial occurred in the Representatives' Hall. Mr. Tyler, indeed, took the oath at the Executive Mansion, in presence of the various heads of departments; and Mr. Fillmore at the Capitol; but, in either case, there was no other ceremony, and the act itself was probably one of supererogation, as the obligations originally administered to these gentlemen, as Vice-Presidents, contemplated the possibility of their subsequently assuming the superior functions. The inaugural ceremonies, in modern times, are briefly as follows:—

At twelve o'clock, or very shortly after, the President-elect, usually accompanied, as an act of courtesy, by the retiring President, makes his appearance in the Senate Chamber, where are already assembled the members of the Senate and of the National Judiciary,

¹ For many years it was customary for Congress to adjourn, *sine die*, on the 3d of March; but, more recently, the House of Representatives, at least, has prolonged its last session through that night, and, not unfrequently, down to the very mid-day stroke of the clock on the 4th. The establishment of this particular day had no reference to any national or historical occurrence, but was purely the result of accident. On the 13th of September, 1788, the old Congress passed a resolution fixing a future day for the appointment of the first presidential electors, another for the electors to meet and declare their vote, and a third for the formal commencement of national proceedings under the Constitution. These

days were consecutively the first Wednesdays in January, February, and March, of the ensuing year, and the latter chanced to fall, in the year 1789, on the fourth day of the month. On that day, the new Congress accordingly met; but, owing to there being no quorum of the Senate previously in attendance, Washington's inauguration as President did not take place until the 30th of the following April. Subsequently, by an Act of the same Congress, his term of office, and that of all the subordinate members of the Government, were declared to date back to the 4th of March, which day has continued to the present time to be the commencement of the official year.

the heads of departments, and other officials, with a few distinguished spectators; when the oath of office is administered to the Vice-President-elect, in order, chiefly, to perfect the organization of the Senate, of which he then becomes, and continues, the presiding officer. Immediately after this ceremony, a procession is formed and proceeds to the portico, on the eastern front of the Capitol, over the steps leading to which a spacious platform has been erected. The extensive area, immediately in front, is densely packed with a living mass, of both sexes, many of whom have journeyed perhaps thousands of miles in order to be present at this crowning triumph of their political chief. The procession is, of course, received with the usual manifestations of enthusiasm; and it is very rarely that the slightest demonstration of dissatisfaction is made by the partizans of the defeated presidential candidate, who submit good naturedly to the temporary prostration of their dearest hopes, and philosophically console themselves and each other with the sanguine expectation of "better luck next time."

After an appropriate prayer, usually by some distinguished clergyman, the President-elect, without robes or any other official *insignia*, advances to the front of the platform, and reads his Inaugural Address; which occupies a space of time that depends upon its author's caprice, or, rather, upon the number of weighty topics then agitating the public mind. He is expected to touch upon every subject—past, present, or prospective—that possesses, or is likely to possess, any interest for any portion of the people. It may be here said, in reply to the wonder often expressed, and the pleasantry indulged in, especially by Englishmen, on account of the sometimes extravagant length of this and other Presidential Addresses, that the Inaugural is supposed to indicate minutely the future policy of the new Government, and that the Annual Messages of the President afford the only medium of direct communication between the Government and the peo-

ple. While the members of the British Ministry must also have seats in one of the Houses of Parliament, and may there be publicly questioned in regard to any of their acts and purposes, in the United States the heads of departments must *not* be members of Congress; and, therefore, no information can be obtained from them on any subject, except such as they may choose to afford, in writing, in response to a formal resolution of that body. Of the two systems, I say very frankly, as an American, that I much prefer the one in vogue in England. But it may be very readily seen that the people of the United States depend greatly upon these periodical messages for their knowledge of Government policy and conduct generally, and shape their future political action, individually and collectively, according to their approval or condemnation of the revelations and propositions which they contain.¹

At the conclusion of the Inaugural Address, or, usually, before the closing sentences have been read, the Chief Justice of the National Supreme Court, wearing his official robe, administers the oath of office, in the following form:—The President, holding in one hand the Constitution of the United States, lays his other upon an open Bible, and repeats the formula prescribed by the Constitution, and which constitutes the only ceremonial recognised in that instrument, as follows:—

"I do solemnly swear that I will faithfully execute the office of President of the United States, and will, to the best of my ability, preserve, pro-

¹ It may be interesting to know that so eager are the people to obtain these Addresses and Messages at the earliest possible moment, and so unwilling to await their reception after their delivery, even through the rapid medium of the telegraph, that later Presidents have suffered them to be privately printed in advance, and copies to be sent to certain confidential officials in the various cities, by whom they are furnished to the principal newspapers as soon as a telegram announces their delivery at Washington,—by which means they are read almost simultaneously in localities a thousand miles apart, and within an hour of their utterance at the Capital.

"tect, and defend the Constitution of the United States."

And this is all. With the utterance of these simple but solemn words, the man, but yesterday one of the people, becomes the arbiter of the destinies of millions, and capable of acts that shall shake the universal world to its centre.

The procession now retires, the crowd disperses, and the capital resumes its usual avocations. A few peaceable cannon, perhaps, announce, through their brazen mouths, the termination of the ceremony; a military band accompanies the carriages of the President and his retinue to his new home; flags wave from the public buildings and hotels; the rabble cheer the passing cavalcade; and then every one goes about his business, whatever it may be, until the evening, when the "White House," the presidential mansion, is thrown open for a public *levée*. The President is visited in the afternoon by the diplomatic corps and other distinguished personages, and by noon the next day, if not before, may be found in his cabinet fairly at work—completing the unfinished labours of his predecessor, or initiating the changes and new measures to which he is committed by the peculiar policy of his party.

In case of the re-election of a President, the public inaugural ceremonies have heretofore been dispensed with; the oath being then taken, as a simple necessary formality, in one of the Halls of Congress, and in the presence of that body and the heads of departments. It is proper also to say that, in some instances, the public procession and other demonstrations of the populace are on a more extensive scale; military bands and political clubs coming from distant parts of the country in order to gratify their own curiosity, and add to the *éclat* of the occasion; but, even when the utmost excitement exists, and the greatest extravagance is displayed, the contrast between the presidential inauguration and the coronation of a European monarch may be said to be almost infinite.

The influx of strangers on these occa-

sions is enormous, and it is not unusual for many persons, who can find no accommodation in the city or its vicinity, to sleep for one or two nights in tents and temporary sheds erected in the public grounds, or even to obtain such rest as they may in hackney coaches and other covered vehicles. The ordinary attendance at the inaugural ceremony is variously estimated at from one to two hundred thousand persons, and, in case the day proves stormy, the display of umbrellas alone is a curious sight, worth journeying some distance to witness. It is customary to close the day with a grand inaugural ball at one of the public saloons; but this is entirely unofficial in its character, although the President and his *suite* are usually present during some portion of the festivities.

Any natural-born citizen of the United States, having reached the age of thirty-five years, is eligible to the office of President, and no other requirements or disabilities are recognised in the Constitution; so that, to state an extreme case, the rag-picker of yesterday might become the Chief Executive of to-day. Although his term of office expires at the end of four years, he may be re-elected as often as his particular partizans can succeed in their efforts at the polls, or in the House of Representatives as the last resort. No incumbent, however, has yet been suffered to retain the office for more than two terms, and it is extremely doubtful if, under the peculiar institutions of the country, and owing to the uncertain temperament of such a heterogeneous people, any man living could acquire the degree of popularity necessary to carry him safely through a third ordeal like that to which candidates for the Presidency are always subjected.

It is a singular, but, after all, not unnatural fact, that the American Presidents are seldom heard of after their enforced retirement from the high dignity to which they have been temporarily elevated. Some of them, indeed, appear to have sunk into almost total obscurity; and it may be said that, with the exception of Washington himself—who stood

and ever must stand alone and apart from all others in the estimation of his country and the world—even the occasions of their deaths have failed to excite more than a passing attention, manifested chiefly in a formal attendance upon certain funeral ceremonies common in such cases, and the rehearsal in the daily journals of a few biographical and historical reminiscences relating to their respective careers. Among the earlier Presidents there are, of course, some names that cannot soon be forgotten, because they are identified with the more prominent features in the history of the country itself, and acquired, from this and other causes, a world-wide reputation; but who ever hears, in these days, of at least *some* who have held that office during the last twenty-five years?

Probably this state of things is owing mainly to the fact that the ex-Presidents have, with a single exception, withdrawn wholly from public life at the conclusion of their respective terms of office—perhaps under the impression, whether mistaken or otherwise, that it would be an infraction of personal or national dignity if they were to accept and occupy a more humble station. Mr. Van Buren retired, in 1841, to his private residence on the Hudson River, and there remained, engaged solely, according to the standing national joke, in “cultivating cabbages;” and I venture to say that he is, to the rising generation of America, as much of a myth as the Khan of Tartary or the Begum of Oude.¹ General Harrison died in office. His accidental

¹ Since the text was written, the news of Mr. Van Buren's decease has been received in England. As a remarkable and pertinent confirmation of the statements already made, I quote *verbatim* from the newspaper announcement of this and other events:—

“The steamer *Golden Gate* sailed from San Francisco on the 21st of July, with 1,000,000 dols. in specie for New York, and 270,000 dols. for England.

“*Ex-President Van Buren is dead.*

“The price of flour is quoted 20 dols. per bbl. Fresh meat 30c. to 40c. per lb.”

An ex-President's death unceremoniously sandwiched between a shipment of specie and the price of fresh meat!

successor, Mr. Tyler, returned to his plantation in Virginia. It is related of him that, shortly after, his neighbours, in a spirit of pleasantry, elected him to the almost menial office of overseer of the public roads in his vicinity; and that, instead of resenting what amounted practically to an insult, he not only accepted the post, but actually performed its duties in such a rigid manner, and exacted from the jesters so strict a fulfilment of the requirements of the law on their part, that they were glad to beg him, although vainly, to resign. He died a few months ago, and, sad to say, owing to recent occurrences, without the usual recognition of the event that would otherwise have been made by at least two-thirds of the people over whom he had once ruled. Mr. Polk sought his old home in Tennessee, and died shortly after. General Taylor died in office, but, had he lived, would scarcely have resumed his rank and duties in the national army. His successor, Mr. Fillmore, the second, and, as yet, the last of the accidental Presidents, returned to his office and his law books, but his own notoriety as a barrister does not appear to have increased by reason of his temporary greatness. He lived quietly, and very plainly, at Buffalo—respected, indeed, as a man and a citizen, but unrecognised and to many even unknown as an ex-President; and he is now actually serving as a volunteer in the army, and occupying no higher post than that of captain in one of the New York regiments. General Pierce, who entered office under a load of personal sorrow that almost overwhelmed him, and completely crushed the partner of his life, has devoted his whole time since his retirement to foreign travel and other recreations, in the hope of alleviating the grief from which the latter seems destined never to recover.¹ Mr. Buchanan has remained shut up in his bachelor quarters, occupying himself with his autobiography, by which he hopes to prove that he could not have averted the occur-

¹ Their only child, a promising son, was killed by a railway accident, before their own eyes, just before Mr. Pierce's inauguration.

rences of the past few months—a fearful responsibility that twenty millions of people, comprising his old political friends as well as foes, seem disposed to thrust upon him. The record of Mr. Lincoln's future cannot, of course, be here written; there is little doubt, however, that the military element before mentioned, and other weighty political causes, will effectually prevent his reelection to the post he now occupies; and his destiny is probably a return to his old functions as a member of the Illinois bar.

The only ex-President who ever trampled all ideas of infringing his own or the nation's dignity under foot, and possessed the moral courage to exemplify in his own person one of the strongest peculiarities of democratic institutions, was Mr. John Quincy Adams; who, in 1831, only two years after his retirement from the Presidency, being then sixty-five years of age, and having already spent forty years in the public service, took his seat in the Lower House of Congress, which he retained, literally, until his death—for he was finally stricken down in his place, and saw "the last of earth"¹ in the Speaker's room, only a few yards distant. I have never heard that, by pursuing this course, he lowered himself in the estimation of a solitary individual, either at home or abroad; but, on the contrary, this portion of his career is probably that in which he acquired his greatest reputation, and by which his memory will be longest perpetuated.

A series of singular coincidences in connexion with the demise of no less than three of the Presidents, excited extraordinary interest at the time of their occurrence, and are still referred

¹ His own last dying words.

to as among the most remarkable of their class. On the 4th of July, 1826, being the fiftieth anniversary of the birthday of the nation, died John Adams and Thomas Jefferson, the immediate successors of Washington in the executive office. They were both originally lawyers, both members of the Congress which declared the national independence, both on the committee by which the declaration itself was reported; one was actually the author of that memorable instrument, and the other one of its strongest advisers and supporters, while both signed it; both were subsequently employed on foreign missions, both became Vice-Presidents, and both, finally, Presidents; and both, having assisted so materially at the nation's birth, and watched and fostered its growth for exactly half a century, sank, at almost the same moment, into their final rest, and their memories received jointly the funeral honours bestowed upon them by their mourning country. It is doubtful if a parallel can be found anywhere in the pages of history.

But to add to this extraordinary record, the death of James Monroe, the fifth President, occurred just five years later, in the year 1831, and also on the 4th of July. Although he had not been personally connected with the history of the Declaration of Independence, yet he had afterwards been one of its firmest defenders, and owed his eminence to its existence and perpetuation.

Singularly enough also, John Quincy Adams, sixth President, and Monroe's immediate successor, died on the 22d of February—another anniversary little less sacred to Americans than that of the 4th of July, viz. that of the birthday of Washington.

END OF VOL. VI.

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